

# Macworld

OCTOBER 2015

MACWORLD.COM

FIRST LOOK AT THE

# iPhone 6s

ALL ABOUT  
ITS NEW  
LIVE PHOTOS  
AND 3D TOUCH  
FEATURES



+

TIME-SAVING  
TIPS FOR  
**OFFICE 2016**

# AKiTiO Thunderbolt™

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**CCO & SVP, U.S. MEDIA AT IDG** John Gallant

**EDITOR IN CHIEF, CONSUMER BRANDS** Jon Phillips

**EXECUTIVE EDITOR** Susie Ochs

**DESIGN DIRECTOR** Rob Schultz

## Editorial

**SENIOR EDITOR** Roman Loyola

**ASSOCIATE MANAGING EDITOR** Leah Yamshon

**STAFF WRITERS** Caitlin McGarry, Oscar Raymundo

**SENIOR CONTRIBUTORS** Adam C. Engst, Glenn Fleishman, Lex Friedman, Rob Griffiths, John Gruber, Jim Heid, Andy Ihnatko, Joe Kissell, Ted Landau, Rick LePage, Ben Long, Kirk McElhearn, John Moltz, John Siracusa, Derrick Story

**COPY EDITOR** Sue Voelkel

## Design

**DESIGNER** Monica Lee

**CONTRIBUTING PHOTOGRAPHER** Peter Belanger

## Advertising Sales

**SALES MANAGER** Duane Hampson 415/978-3133

## Production

**DIRECTOR, PRODUCTION** Nancy Jonathans

**SENIOR PRODUCTION MANAGER** Tamara Gargus



**INTERNATIONAL DATA GROUP CHAIRMAN OF THE BOARD**  
Walter Boyd

**IDG COMMUNICATIONS, INC. CEO**  
Michael Friedenberg

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**FAX** 515/432-6994

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**PHONE** 800/288-6848 from the U.S. and Canada; 515/243-3273 from all other locations

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#### HOW TO CONTACT MACWORLD STAFF

---

Our offices are located at 501 Second Street, 6th Floor, San Francisco, CA 94107; phone, 415/243-0505; fax, 415/243-3545. *Macworld* staff can be reached by email at [firstinitiallastname@macworld.com](mailto:firstinitiallastname@macworld.com).

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## 10 things that iTunes does right

iTunes 12 has its share of problems. But there are several tasks that iTunes is good at.

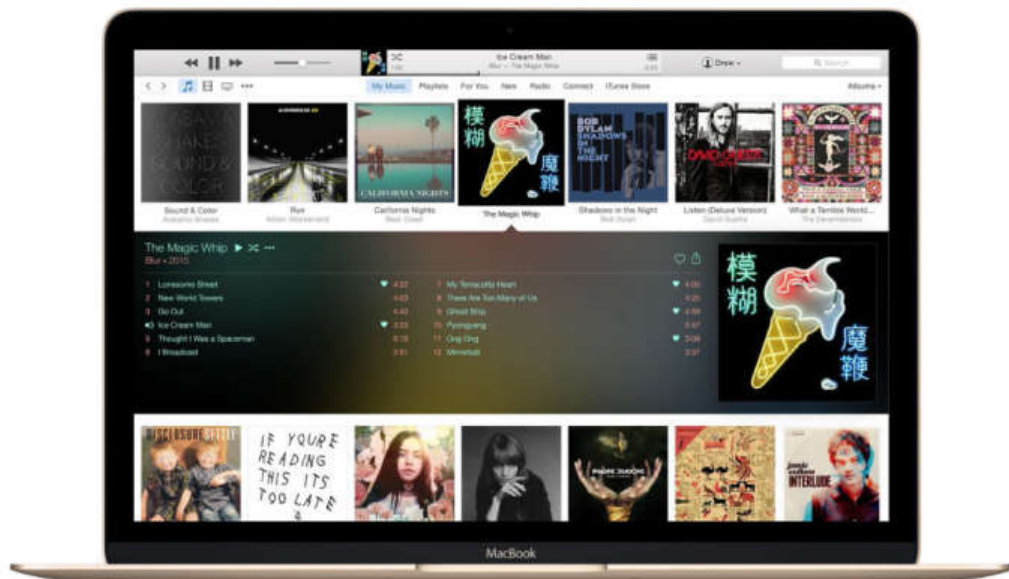
BY KIRK McELHEARN

**A**pple's iTunes gets a lot of criticism, including a lot that I dish out, and much of this criticism is justified. iTunes has lots of problems syncing iOS devices, iTunes Match and iCloud Music Library are confusing, and the interface, particularly in iTunes 12, is confusing.

To be fair, though, iTunes does get a lot right. You can condemn it for many problems, but it's good to sometimes take a step back and give it credit for the features that work so well that you hardly pay attention to them. I've picked ten things that iTunes does right.

## 1. CD RIPPING

If you remember back in the days before iTunes, CD ripping software—at least on the Mac—was far less user-friendly than iTunes. You had to manually enter tags for your music, and then move the files into iTunes or whichever app you were using to play your music.



iTunes made big improvements by unifying the process of ripping, tagging, and adding music to your library, and also through the integration of Gracenote to fetch tags for most of the CDs you rip. While iTunes may rip some CDs slowly, this seems to be more because of the CDs than the app itself. I rip a lot of CDs with iTunes, and it acquires itself well.

## 2. PLAYLISTS

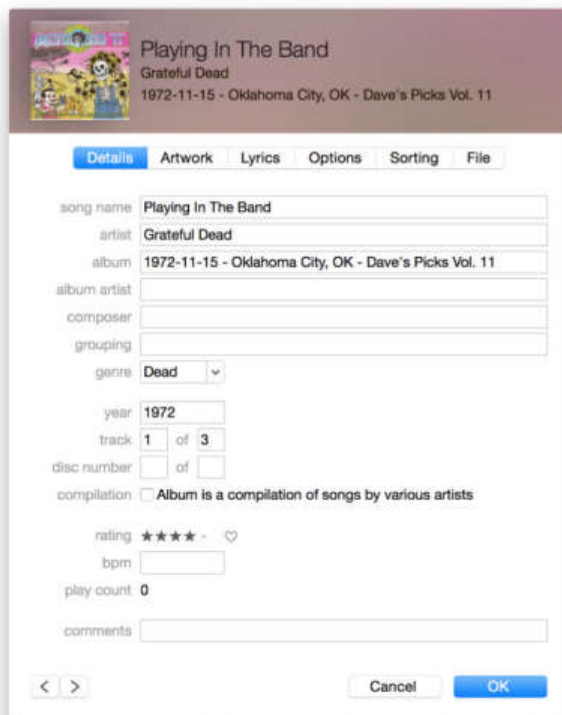
The ability to create and manage playlists is one of the revolutions of digital audio. Instead of only being able to listen to the tracks you copied to an MP3 player in a folder, iTunes lets you make as many playlists as you want. They're easy to set up, and easy to manage, and you can even organize them in folders if you have a lot of them.

## 3. SMART PLAYLISTS

Playlists are one thing, but when they got smart in iTunes 3, that changed everything. You can set up playlists to find music by specific artists or genres, music you added recently or years ago, music you've played a lot or never listened to. And you can shuffle them too.

## 4. VIDEO PLAYBACK

iTunes' ability to play videos lets you watch anything in your iTunes library on your Mac or PC, at home or when traveling. If you use iTunes to man-



age your video library, it's a lot easier to play videos from iTunes than from a video-only app. You can watch your favorite movies or TV shows with the app, and it remembers where you stopped if you haven't finished watching a movie. If you're watching episodes of a TV series, it shows you which ones you've seen.

**SETTAGS** for your files in iTunes.

## 5. FILE TAGGING

iTunes is certainly not the only media-management app that tags



digital media files; they all do. But iTunes does it quite well. While you may not like the way the Info window is laid out, or the way you navigate it, it's still very efficient, and a lot easier to use than that of many other apps.

## 6. CONTENT DISPLAY

While iTunes 12 mixes things up as far as navigating libraries is concerned, iTunes does offer a lot of different ways to view your content. You can view music by album, artist, genre, or song, and the Column Browser lets you drill down through your library. Other types of content have similar views. You can choose how to view each library—Music, Movies, etc.—and each playlist. It can be hard to grasp, but it's quite flexible.

## 7. HOME SHARING

iTunes lets you share your library over your home network. Yes, this is fraught with problems, and sharing a large library to an iOS device generally doesn't work. But it's easy to share your music library throughout your home, allowing other people in your family to listen to your music easily.

You can also share your library to an Apple TV, which puts all your media at your fingertips in the living room. (I know, this is often glitchy too.) This ability to share your content

with your family is very practical. If only Apple could get all the kinks out of it....

## 8. REMOTE CONTROL

Apple's Remote app for iOS lets you control iTunes playback on a computer. This is great if you're streaming music via AirPlay to a speaker, say, in your bedroom. Or if you're just sitting in the living room, streaming music through an Apple TV.

## 9. THE iTunes STORE

When Apple went into the music

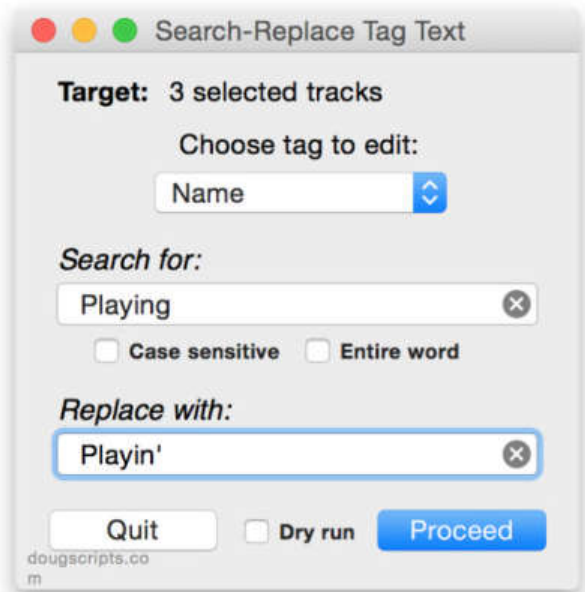
**CONTROL MUSIC**  
with the Remote  
app on an iOS  
device.



retail business, it wasn't a big surprise, but it changed the landscape of the music industry. Now, the iTunes Store sells music, movies, apps, books, and more. It's generally easy to navigate, and the seamless process of buying digital content and having it download to your library is nearly foolproof.

## 10. APPLESCRIPT

If you use a Mac, you have the ability to extend iTunes using AppleScript. Thanks to Doug Adams, whose website Doug's AppleScripts ([go. macworld.com/dougscripts](http://go.macworld.com/dougscripts)) for iTunes houses hundreds of scripts, we have the ability to do all sorts of things that iTunes can't do, such as manage files, change tags, work with playlists, and much more. It's great that Apple has provided support for AppleScript in iTunes, and I hope it continues to do so. ■



**SEARCH-REPLACE TAG** Text, one of the many useful AppleScripts that make iTunes easier to use.

I was one of the **1** in **5**  
Children in America who  
**STRUGGLE WITH HUNGER**  
join me and help put an  
End to childhood hunger.

Viola Davis

**HUNGER IS  
ALL OF US**

**HELP UNDO CHILDHOOD HUNGER. GO TO [HUNGERIS.ORG](http://HUNGERIS.ORG)**

THE  
**SAFeway**  
FOUNDATION

The *Hunger Is* campaign is a collaboration between The Safeway Foundation and the Entertainment Industry Foundation to raise awareness and improve the health of hungry children.

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The Safeway Foundation and the Entertainment Industry Foundation are 501(c)(3) tax-exempt organizations. Photo by: Nigel Parry



# Twitter on the Mac: Do your job, or get out of the way

Development of Twitter's Mac app has stalled, and maybe Twitter should call someone who cares.

BY JASON SNELL

**T**hree years ago Twitter broke its covenant with the third-party developers ([go.macworld.com/twitter1](http://go.macworld.com/twitter1)) who helped fuel its initial growth and create some of its most innovative features. The message was clear: Twitter was in charge of its own platform, and while other Twitter apps would be tolerated, they would only be so in limited fashion and for a limited time.

---

Today Twitter is a company in turmoil, with investors such as Chris Sacca clamoring for change ([go.macworld.com/sacca](http://go.macworld.com/sacca)) after the exit of former CEO Dick Costolo and the interim takeover of cofounder Jack Dorsey. What can't be disputed is that Twitter's Mac app—introduced in 2011—is an extreme example of how Twitter has squandered the past few years. It drove third-party developers off of its platform in order to exert control, and then proceeded to bungle its app development.

Twitter for iOS, while it has its issues, is generally considered to be a competent app. (I don't use it—I'm still clinging to Twitterrific. And of course, so many people love Tweetbot for iPhone.) Unfortunately, Twitter has withheld most of its new innovations (such as the contents of the Notifications tab, including a list of who follows, retweets, and favorites you) from third-party apps, so even the most impressive third-party app is hobbled out of the starting gate.

On the Mac, though, it's been a disaster. I use Twitter for Mac every

day because I rely on the contents of that Notifications tab, and because Tweetbot has never really appealed to me. (Unfortunately, the Mac version of Twitterrific is so old that it's essentially unusable.)

How bad is Twitter for Mac? So bad that it fails to support numerous features introduced with fanfare by Twitter itself. The new Mute feature, which lets you block out communications from people you don't want to hear from without blocking them entirely? Not only can you not initiate a mute from Twitter for Mac, but I've found that when I mute someone from Twitter's Web interface, many of their tweets still appear in my timeline.

Tweet quoting, rolled out earlier this year ([go.macworld.com/tweet](http://go.macworld.com/tweet)), is still not supported on the Mac version of Twitter. Tweetbot (Mac and iPhone) and Twitterrific (iOS) were both updated to support it almost immediately, and are the richer for it.

Then there are the bugs. Too frequently I click on a tweet in Twitter for Mac, only to have it display the contents of an entirely different Tweet in my



timeline. I've seen this bug consistently for months, if not years. I also find the app will often bog down and become unusable until I quit, but then again, sometimes it just quits on its own.

But perhaps Twitter's just given up on the Mac. The tweet announcing tweet-quoting specifically didn't mention the Mac version, and the app itself hasn't been updated since October. I use Twitter on the desktop all the time, but I understand how mobile should probably be Twitter's focus.

### WHOSE APP IS IT ANYWAY?

Still, couldn't this have all been avoided? This is Twitter's platform. It could've placed stricter rules on the third-party apps favored by geeks like me while allowing them to continue innovating on the platform and growing their own businesses, but the rules were too onerous and development is slowly grinding to a halt.

If Twitter doesn't have the resources or inclination to properly support platforms like the Mac (or, quite frankly, iOS and Android), perhaps it should rethink the decisions made by the prior regime and find a way to let other developers apply their expertise to the problem. Alternately, maybe Twitter should figure out how to use its huge team of app developers to create first-class native apps for not just iOS

and Android, but the Mac and Windows too.

Finally, there's the nuclear option: Force everyone on the desktop to use Twitter's website. After all, there's no native Facebook app for the Mac. This is true, and yet I use Twitter far more than I use Facebook for just this reason! With a dedicated Twitter app, I can dip in and out of the social stream as it suits me. I never remember to look at Facebook when I'm sitting at my desk.

It's a tumultuous time for Twitter. It needs new leadership and the overall Twitter product needs to get a lot better. I agree with Chris Sacca's argument that Twitter could truly become our watercooler when it comes to live events ([go.macworld.com/live](http://go.macworld.com/live)), from TV shows to sports to breaking news. There's a lot of work to be done. But as Twitter gets its house in order, maybe it can consider giving a little love to its apps? They sure could use it, especially Twitter for Mac. And if you can't bother making a good Mac app, could you consider handing the keys to competent Mac developers and stepping out of the way? ■

**HOW BAD IS  
TWITTER FOR  
MAC? SO BAD  
THAT IT FAILS  
TO SUPPORT  
NUMEROUS  
FEATURES  
INTRODUCED  
WITH FANFARE  
BY TWITTER  
ITSELF.**

NOVELS ROCK 'N' ROLL  
STAND-UP COMEDY JAZZ  
VIDEO GAMES MOVIES  
COMIC BOOKS TALK RADIO

EVERY NEW ART FORM HAS ITS FIGHT FOR FREE SPEECH.

OUR TIME IS NOW  
FIGHT FOR YOUR VIDEO GAMES



V I D E O G A M E V O T E R S . O R G

# 20 time-saving tips for Office 2016 for Mac

BY RAY AGUILERA



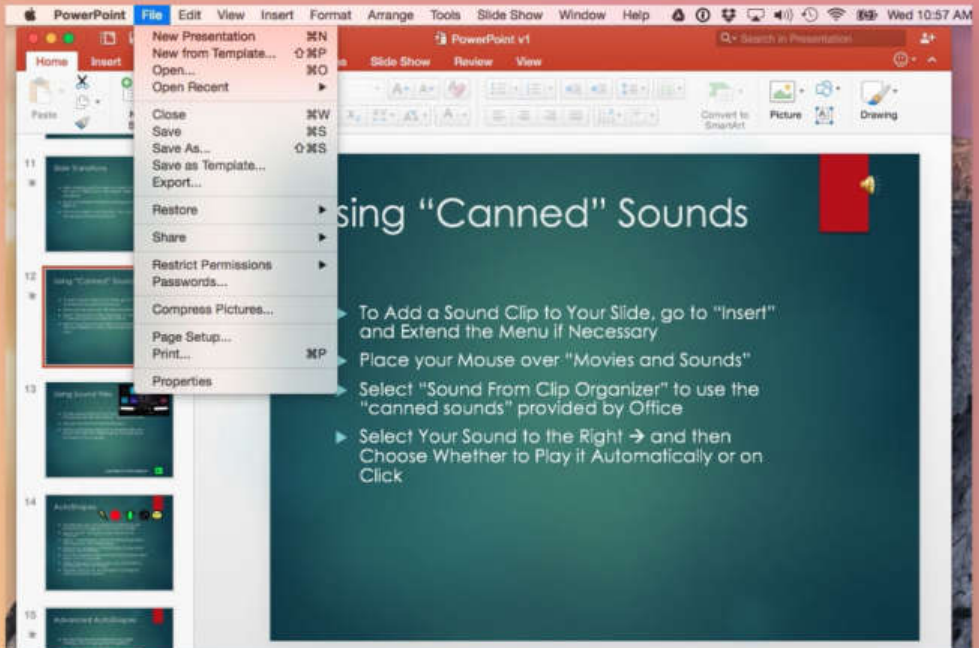




## PRODUCTIVITY? SWEET!

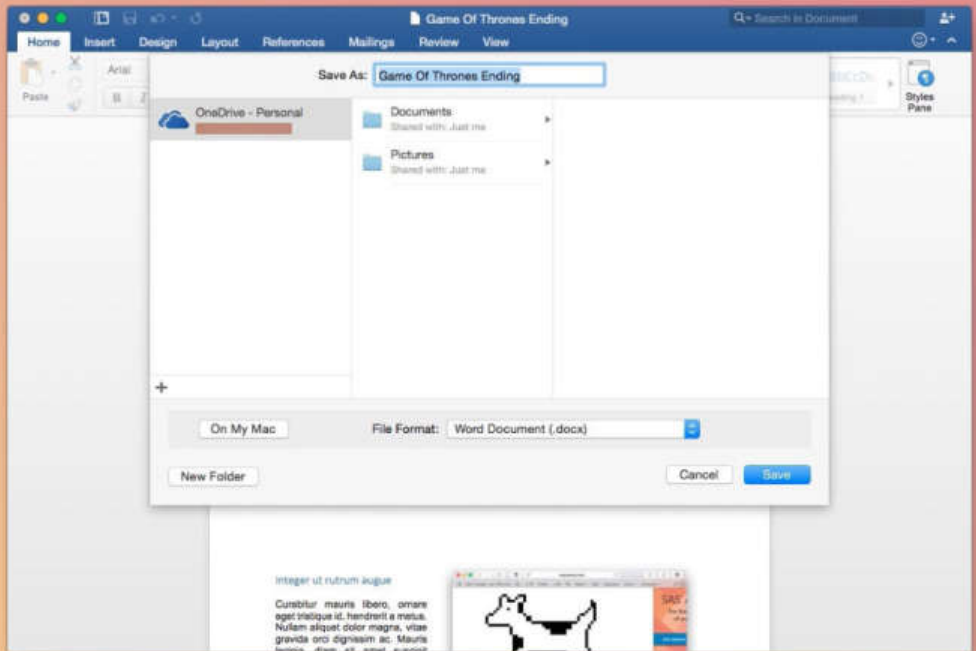
Office 2016 for Mac was a long time coming, but it brings plenty of new features and better feature parity with the Windows version than ever. Microsoft has done a lot to streamline the experience, with a customizable, collapsible Ribbon as well as cross-platform keyboard shortcuts, but with any major Office update, there's bound to be a learning curve. These tips for Word, PowerPoint, Excel, Outlook, and OneNote should come in handy.

Office 2016 is available for Office365 subscribers, with a wider release in September.



## DON'T FORGET TO SAVE!

1. This is probably our most important tip: Don't forget to save! When Apple introduced Auto Save and Versions into OS X, many Mac users started losing our ingrained habit of hitting Command-S often. Unfortunately, Office 2016 (except for OneNote—more on that in a bit) doesn't take advantage of Auto Save. So don't forget to save often. Versioning is also missing, but on the plus side, fans of Save As will find the command in its rightful place in the File menu.

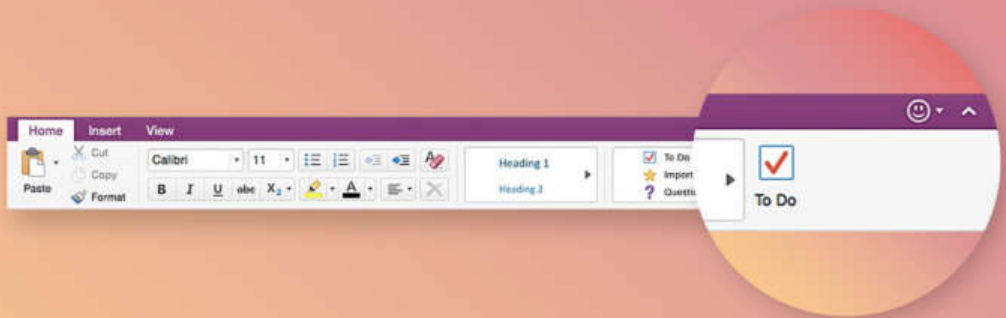


## STORE YOUR FILES IN ONEDRIVE OR SHAREPOINT

**2.** If you need access to your files from anywhere, Office 2016's built-in OneDrive & SharePoint integration makes cloud storage simple.

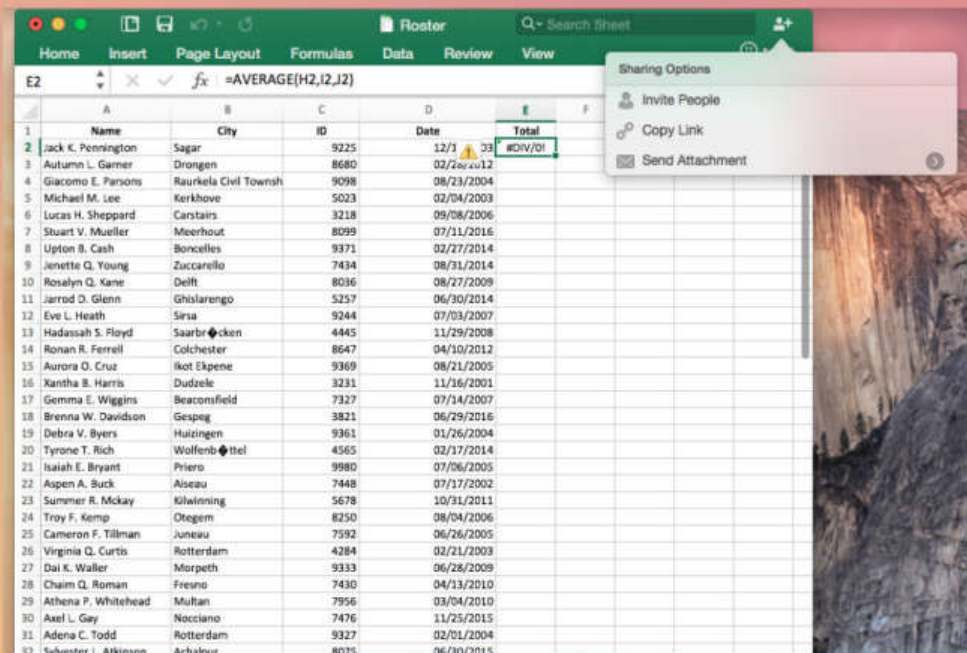
To save to your OneDrive or SharePoint account, click the Online Locations button in the lower left corner of a Save dialog box. Choose your existing account from the list, or click the + button to add another location.

What's the difference? Glad you asked. OneDrive is a consumer product for cloud storage, like iCloud Drive. Aimed more at businesses, SharePoint acts like an intranet, letting teams share and collaborate on files.



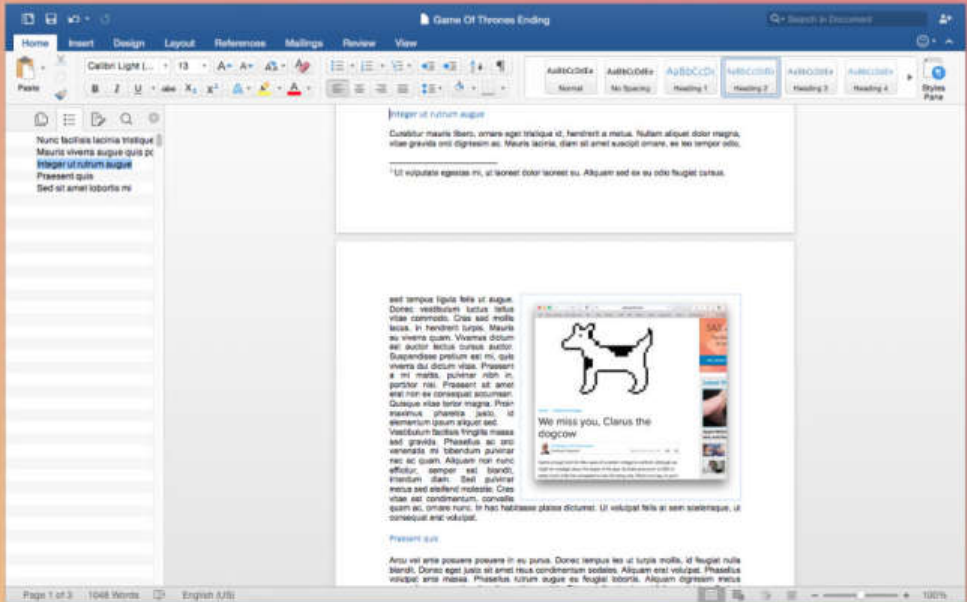
## MAXIMIZE YOUR WORKSPACE

**3.** The redesigned Ribbon in Office 2016 unifies the look and functionality across all platforms. It also takes up a lot of space, and can be pretty cluttered. If you need some extra screen real estate, hide the Ribbon by clicking on the small arrow on the far right side. Click the arrow to display the Ribbon again. You can also show or hide the Ribbon by clicking on the currently active tab. Of course, you can put Office 2016 apps into full-screen mode by clicking the green full-screen button in the upper left corner of any window.



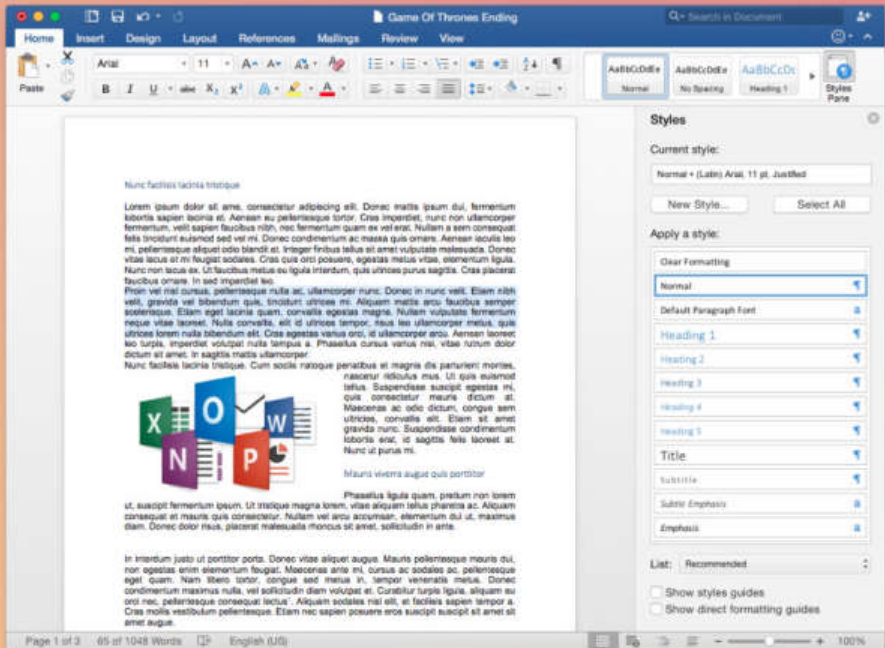
## SHARE DOCUMENTS WITH A CLICK

**4.** Office 2016 has made sharing your documents super easy—just click the silhouette icon in the upper right corner of the window. From the pop-up sharing menu, you can invite people to collaborate, copy a public link, or send the document as an email attachment. If the file is stored locally on your Mac, you'll need to move it to the cloud first in order to invite people or copy a public link, which only takes two clicks.



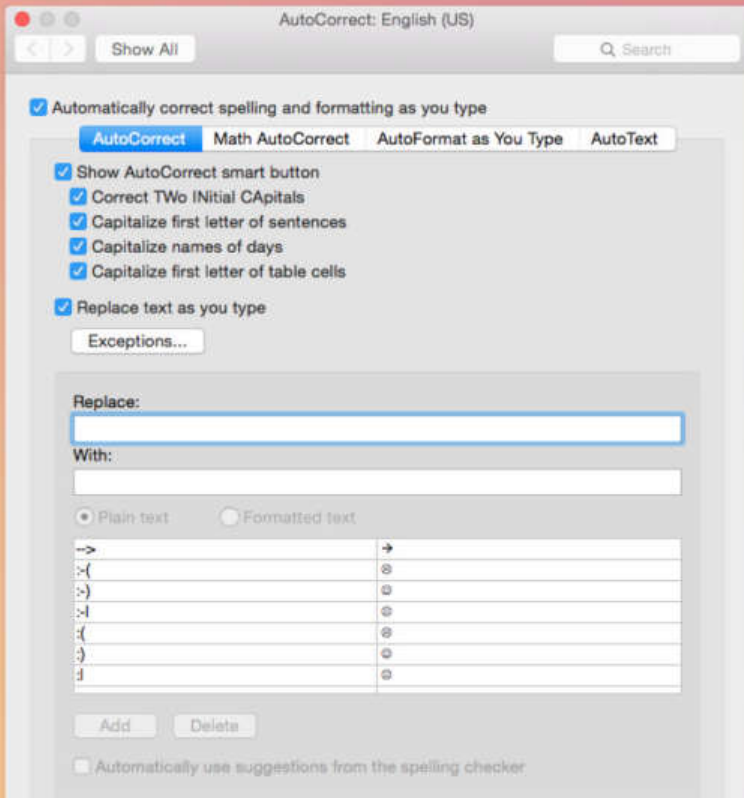
## JUMP AROUND WITH DOCUMENT NAVIGATION

**5.** Use the Navigation pane to easily move around complex documents. To view the Navigation pane, go to View ➔ Sidebar ➔ Navigation. Click on an item in the list to jump directly to that section of your document. The Navigation pane also tracks your location in the document as you edit, highlighting the section you're currently working on.



## TWEAK STYLES QUICKLY

6. Apply and create styles quickly with the new Styles Pane. From the Home tab, click Styles Pane on the far right. Apply a style by clicking its name in the list, or use the New Style button to create a brand-new style from scratch. If you have a document with many applied styles, check the Show Styles Guides box to toggle on a color-coded guide to all the styles that have been applied to your document.

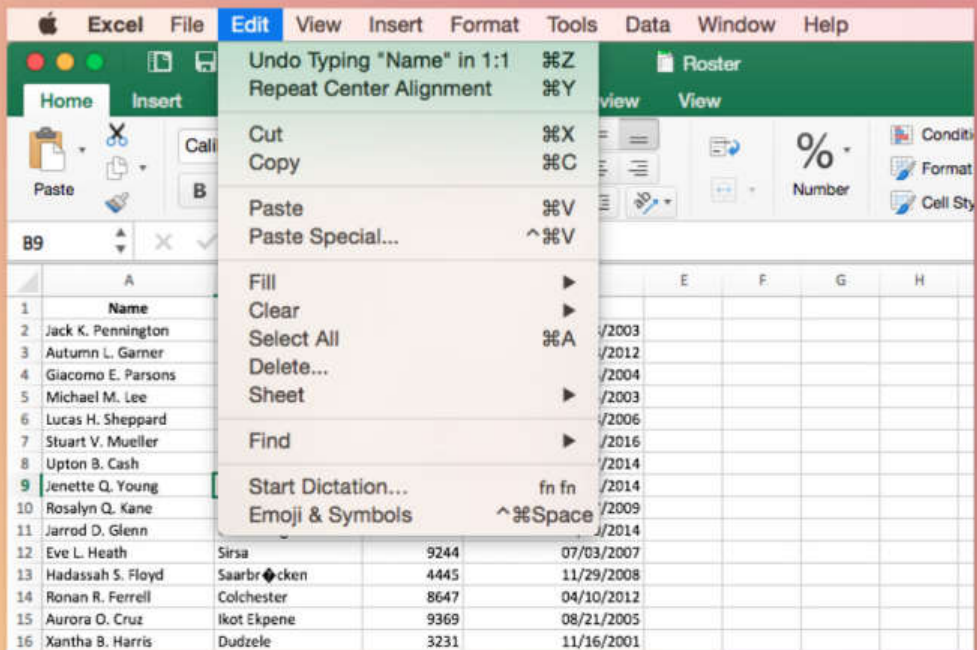


## SAVE TIME WITH AUTOCORRECT

**7** Speed up your writing with AutoCorrect. If you frequently misspell the same words over and over again, add them to

- your AutoCorrect dictionary. Choose Tools → AutoCorrect, and add entries to automatically fix your terrible typing habits. You can also add to your AutoCorrect dictionary from Word's automatic spellcheck. Control-Click a misspelled word, and use the contextual menu to add its replacement to AutoCorrect.

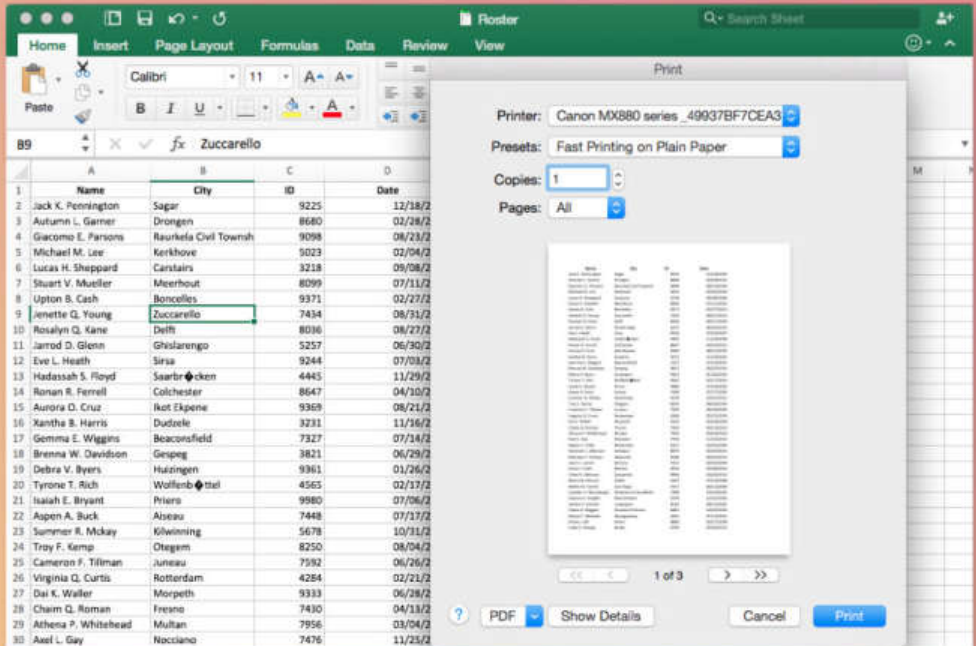




## USE UNIVERSAL EXCEL SHORTCUTS

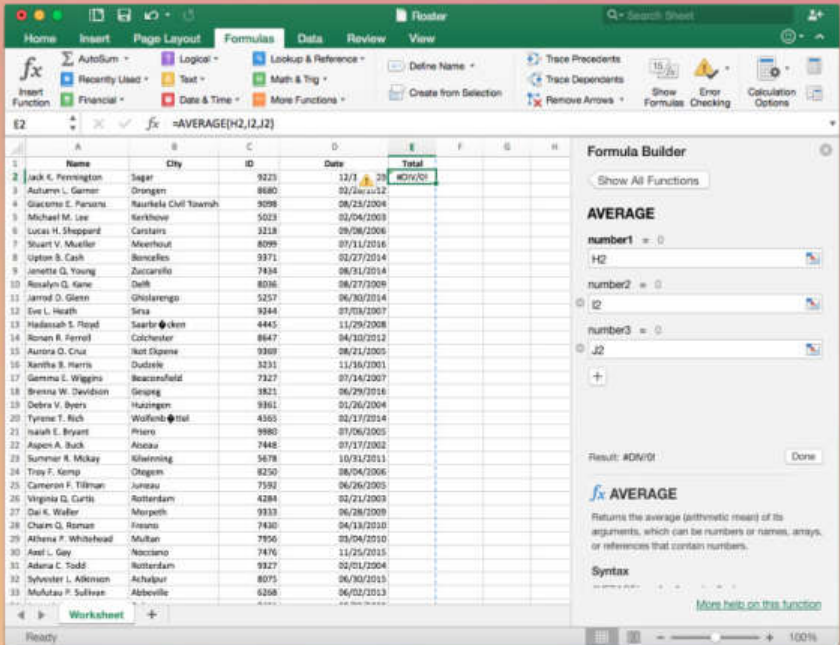
8.

If you work on both Macs and Windows computers, you know how frustrating keyboard shortcuts can be. Now, you can use (most of) the same Excel shortcuts on your Mac as you do on a PC. Mac-centric Command-key shortcuts still work (and show up in menus), but Windows shortcuts you already know will also work in Excel. There are a few exceptions, so check Microsoft's handy cheat sheet.



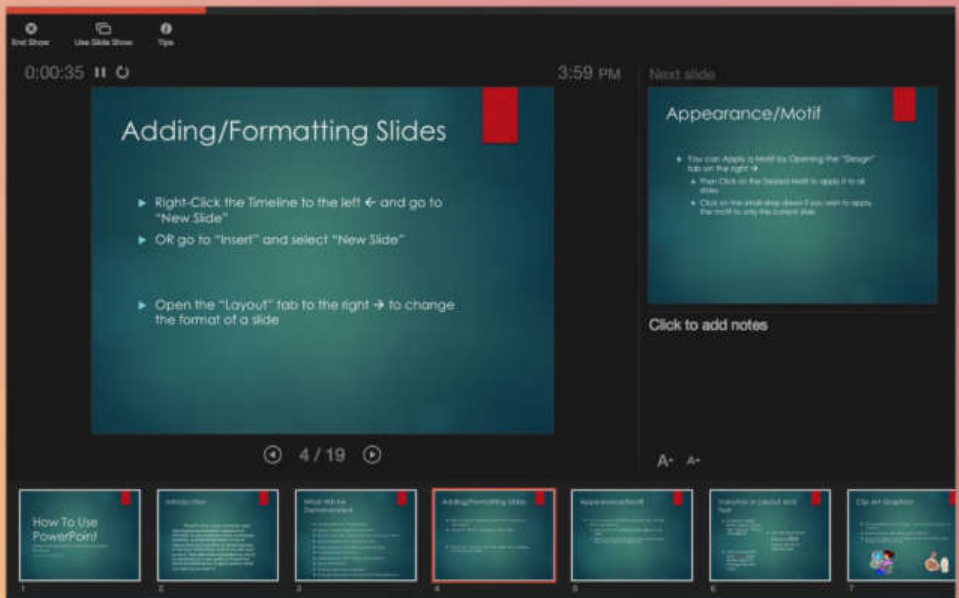
## PRINT TO PDF FROM EXCEL

9. Excel hasn't always played nice with your Mac's PDF functions. Thankfully in Excel 2016, the problem has been solved. In the Print dialog, select Save As PDF in the PDF drop-down menu, and Excel will create a single PDF file from your Excel spreadsheet.



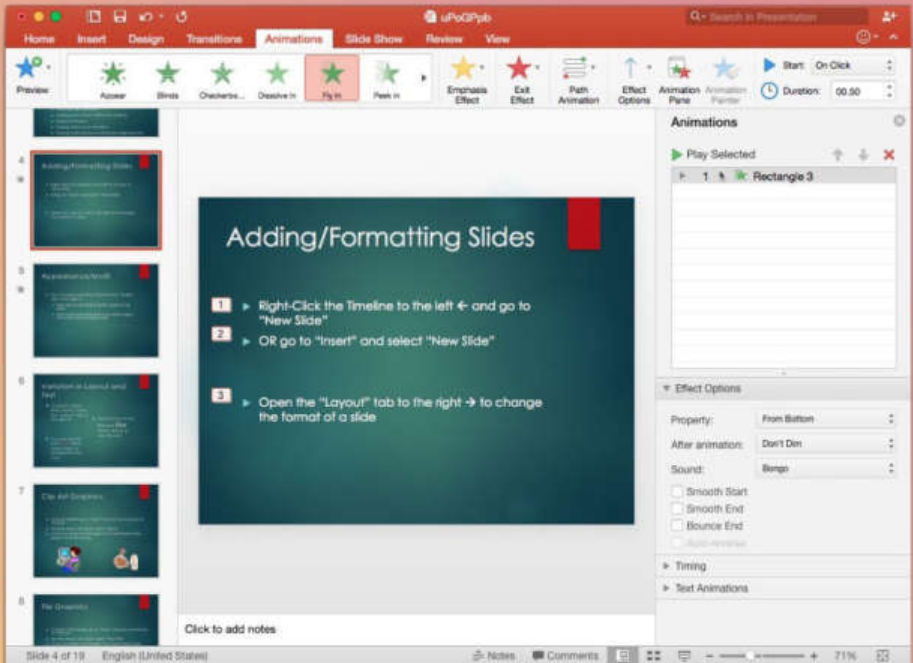
## USE FORMULA BUILDER

**10.** Spreadsheets are great for crunching data, but writing just the right formula can be a process of trial and error. Formula Builder is a boon for users who aren't up to speed on Excel's syntax. Shift-F3 summons the new Formula Builder, giving you point-and-click access to even the most complex Excel formulas.



## PERFECT YOUR PRESENTATION WITH PRESENTER VIEW

**11.** Your presentations will be flawless with PowerPoint's new Presenter view. From here, you can see the current slide, next slide, and a scrollable thumbnail view of your entire PowerPoint deck. Clock and timer functions will keep you on pace, and your notes for each slide are easily readable so you won't miss any important points along the way.



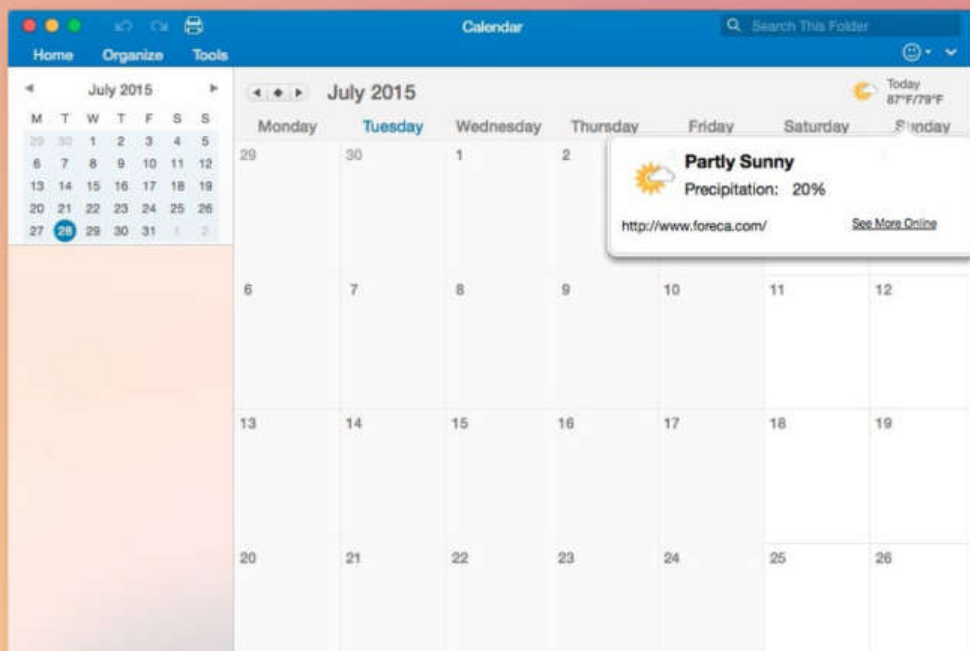
## BETTER POWERPOINT ANIMATIONS

**12.** Now you can fine-tune animations from the new Animations Pane. It offers easy access to sounds, timing, and other animation parameters to get just the effect you're looking for, all in one place.



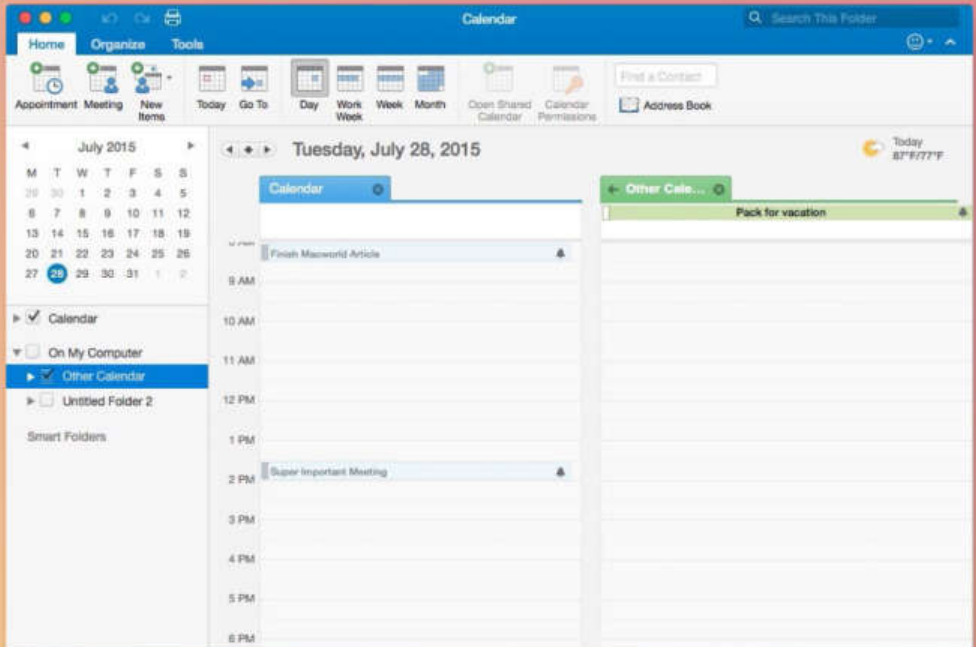
## CROSS-PLATFORM TRANSITIONS

**13.** After spending hours getting your latest presentation just right, you test it on your Mac and find out that some of the transitions aren't available, leading to some unwanted results. Thankfully, that problem is finally solved. Microsoft has added new transitions to PowerPoint 2016 for Mac, bringing it in line with the Windows version. Hooray for cross-platform compatibility.



## WEATHER INFO IN OUTLOOK

**14.** Outlook can display daily weather information at the top of your calendar. Click on the forecast to pop out a larger view, with additional information, and a link that takes you directly to MSN.com's forecast page, with additional local weather information for your location. If you'd rather be surprised when you step outside, simply uncheck a box in Preferences.

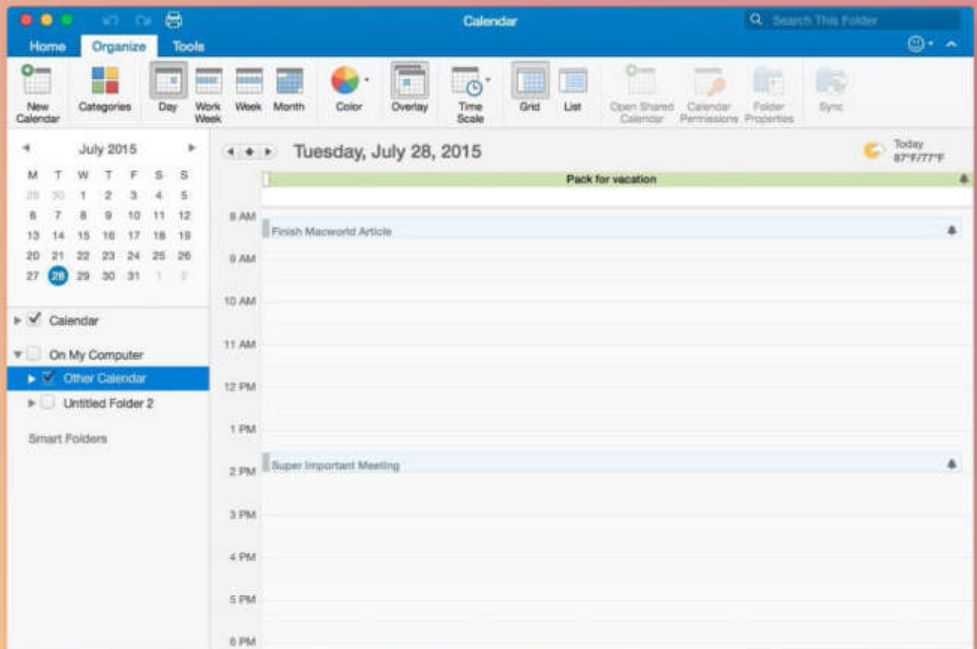


## SCHEDULE WITH SIDE-BY-SIDE CALENDARS...

# 15.

If you're juggling multiple calendars, Outlook 2016's new side-by side option is great for spotting conflicts. To display multiple calendars side-by-side, simply select them using the checkbox in the Navigation pane. Outlook will then use your current view to display multiple calendars in adjacent tabs. Uncheck them to close, or use the X button on a calendar's tab to hide it again.

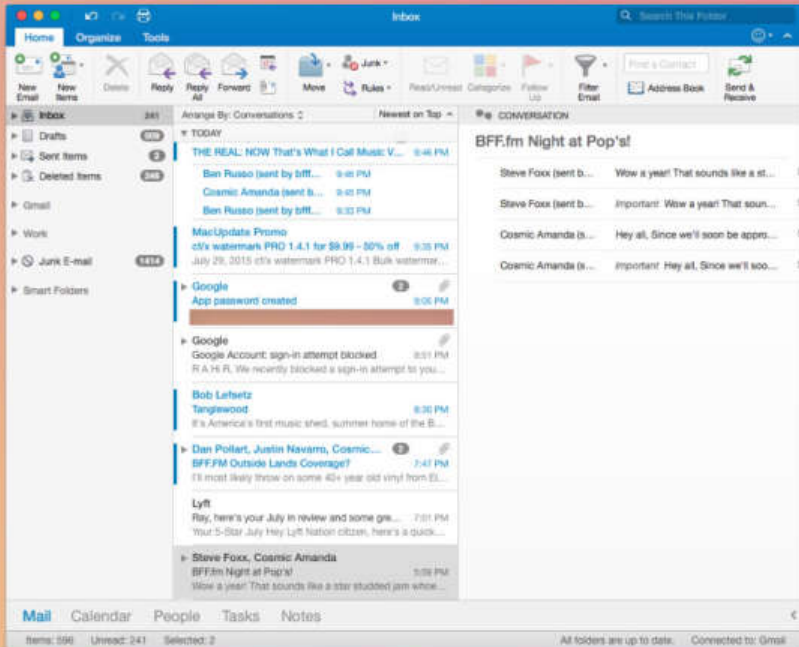




## ...OR OVERLAY MULTIPLE CALENDARS

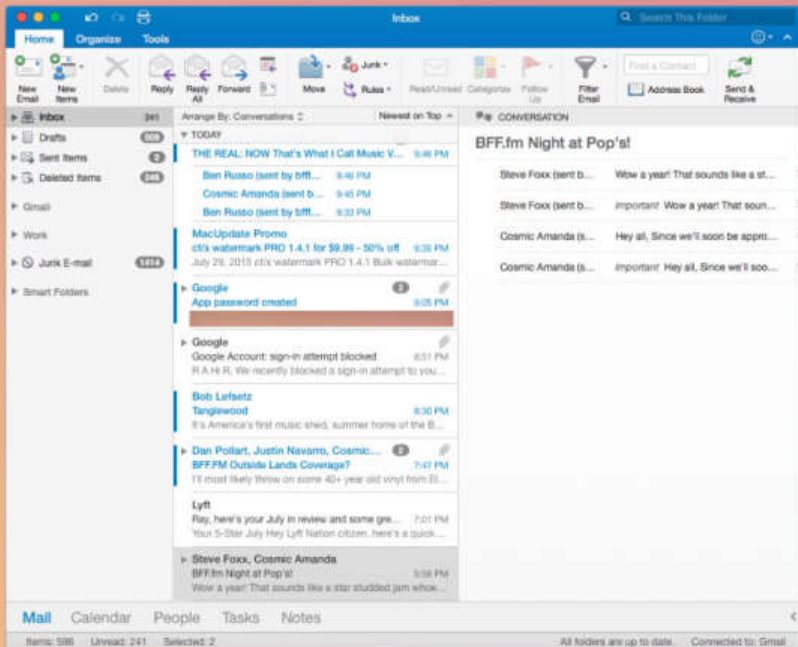
16.

Of course, sometimes you need to see everything at once. With multiple calendars displayed, click the Overlay button in the Organize tab to consolidate multiple calendars into a single view. Clicking the Overlay button again will toggle your selected calendars back into side-by-side mode.



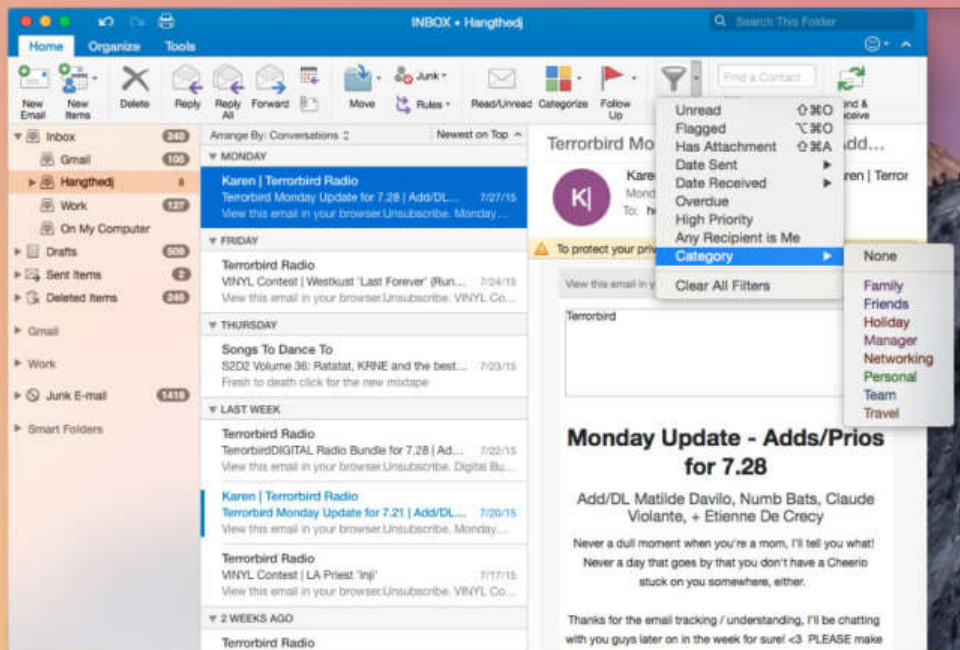
## USE THREADED CONVERSATIONS IN OUTLOOK

**17** Conversations view is improved in Outlook 2016. Your incoming mail will automatically be sorted into threaded groups, and you can act on entire threads, or individual messages. Click the disclosure triangle to display individual messages in a thread, or turn Conversations off by clicking View → Arrange → Conversations.



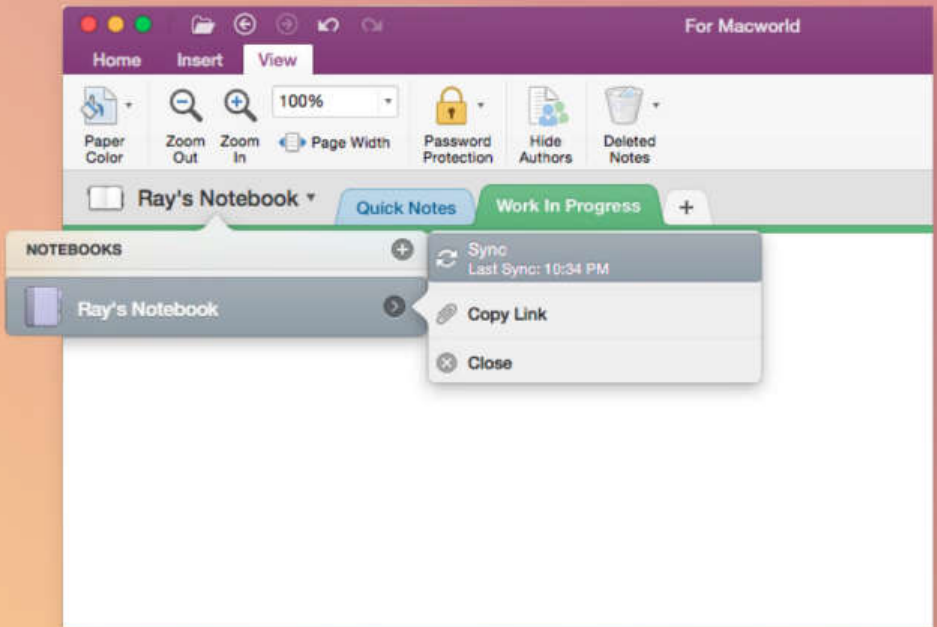
## FIND WHAT YOU NEED WITH FILTERS

**18.** Outlook offers some excellent tools to quickly drill down to just the messages that matter right now. From Outlook's Home tab, the Filter button quickly displays only certain messages, such as mail received today, this week, or this month. You can also filter for messages with attachments, unread emails, and several others. One of our favorite features is the ability to filter by category. It requires a bit of work—you'll need to split senders into relevant groups, but once you do, you can separate out messages from your boss, family, or whatever other group you need at the touch of a button.



## PASSWORD-PROTECT YOUR NOTES

**19.** OneNote is great for collecting and organizing all sorts of information. But some things are better kept away from prying eyes (especially since OneNote syncs across all your devices). To keep your private information out of the wrong hands, use OneNote's built-in password protection. To lock down a section of your notebook, choose **Notebooks → Sections → Password Protection → Protect This Section**. Enter a password, and keep the bad guys out of your stuff.



## ONENOTE SYNC

**20.** Unlike the rest of Office 2016, OneNote saves your data automatically, syncing it via your Microsoft account. This enables you to access your OneNote data across multiple Macs, PCs, or handheld devices. To check when your OneNote notebooks were last synced, click the notebook's name, and then the arrow to the right of the name. ■

# Inside the Macworld Vault: A hidden collection of vintage Macs

BY ROMAN LOYOLA







## PYRAMID OF MAC TOWERS

This is a combination of G5 Power Macs and 2008 Mac Pros. Apple used this basic tower design for over seven years. Apple is so focused now on lightweight, small computers, and the aluminum tower was everything but lightweight and small.

With that in mind, here's a disclaimer: Do not attempt to build your own pyramid of aluminum Mac towers. They are heavy machines, and lifting one above your knees is a difficult task. That tower up top? It nearly fell on my head when I tried to place it there. (The things I do for you people.) I really don't want to hear about Mac enthusiasts inspired by this picture who were crushed by an avalanche of G5 Power Macs and Mac Pros. Don't do it.



## WALLSTREET POWERBOOK

This Macintosh PowerBook G3 was code-named Wallstreet. Two things that struck me about this laptop as I inspected it some 17 years after its release: I really like the feel of its keyboard, and the six-color Apple logo under the screen (which, according to Wikipedia, was the last time Apple used this logo on its hardware).





## MACBOOK AIR AND WALLSTREET

Sitting on top of the Wallstreet PowerBook G3 is a 13-inch MacBook Air (which wasn't in storage). I wanted to see how many MacBook Airs I could stack before it equaled the height of Wallstreet. But I got distracted by the next laptop...



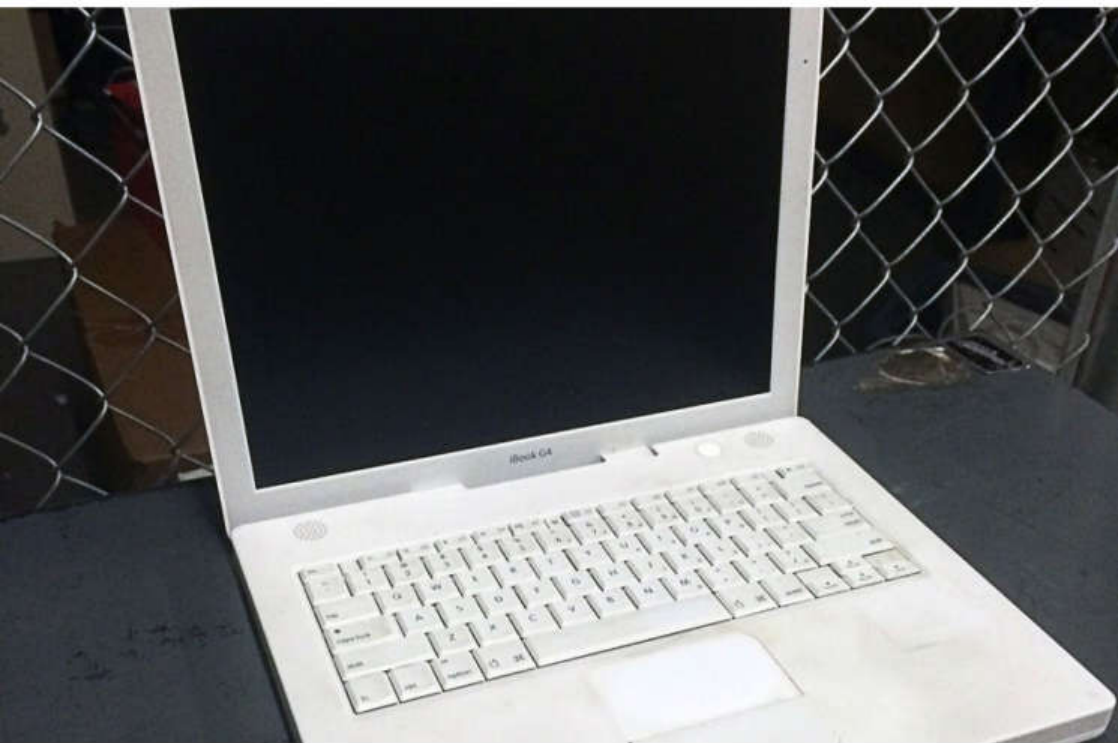
## PISMO POWERBOOK

The Pismo PowerBook came a generation after the Wallstreet PowerBook G3. It was the last G3 laptop.



## TITANIUM POWERBOOK G4

See the broken hinge on this Titanium PowerBook G4? This laptop was in bad shape. I used a similar machine during my stint as a *MacAddict*/*MacLife* editor. Good laptop.



## iBOOK G4

This one is white. Or it was white.



## MACINTOSH SE FDHD

No vintage Mac collection is complete without an original Mac 128K. But we don't have one, so I guess that makes our collection incomplete. We do have a Mac SE FDHD, though. My first Mac was an SE FDHD, which I bought while I was in college.





## GRAPHITE iMAC

The graphite iMac was part of the third generation of the iMac line. This was the first model to have a slot-loading optical drive.



## FLOWER POWER iMAC

There's a Bondi Blue iMac in storage, but I was too distracted by the Flower Power iMac to take a picture of it. I did not find a Blue Dalmatian iMac, however.



## eMAC

The flat-panel iMac made its debut in 2002. The CRT-based eMac was released soon afterward. It was a more affordable all-in-one made available through education channels.





## iMAC (FLAT PANEL)

In 2004, I was hired as a reviews editor for *MacAddict*. During my first month there, I attempted to upgrade the RAM in a 17-inch flat-panel iMac. (I never liked calling it the “sunflower” iMac or the “iLamp.”) I reassembled it improperly and ended up destroying the computer—which was on loan from Apple. My boss was furious and I thought I was going to be fired, but Apple forgave me.



## iMAC G5

I was never a fan of the look of the iMac G5. To me, it made the computer look too much like a kitchen appliance. I still see one or two in public schools today.



## RACK OF ALL-IN-ONES

I like this picture because it shows the changes Apple's all-in-one has gone through over the years.



## APPLE MICE

I've never been a fan of the Apple mouse. It prioritizes style and sacrifices function. It's a very personal piece of hardware, so everyone has an opinion. Whatever works for you. ■



# How many light bulbs does it take to change an American?



It's no joke: climate change is a critical issue for all life on Earth. But can the actions of one individual really make a difference? Visit [nature.org](http://nature.org) to calculate your impact on the world around you and learn about steps you can take to make the world a better place for us all.

[nature.org/calculate](http://nature.org/calculate)

The Nature  
Conservancy   
Protecting nature. Preserving life.™



MAC GEMS ARE APPS THAT OFFER  
STANDOUT UTILITY OR UNIQUE  
FEATURES AT A GREAT PRICE.



STREAMING MEDIA

## MOVE TO APPLE MUSIC 1.1.6: TRANSFER YOUR SPOTIFY AND RDIO PLAYLISTS TO APPLE MUSIC

BY KIRK McELHEARN

**SO YOU'VE BEEN USING SPOTIFY** for a while, and you've got a sidebar full of playlists, with songs and albums you've been saving. That's quite a digital collection you've got there.

But now Apple Music ([apple.com/music](https://apple.com/music)) has come on the scene, and you want to switch. Spotify won't help you—you can't export your playlists, at least not in any usable format—and iTunes has no way of importing your music.

What do you do? Go through each and every song on Spotify and search for it on Apple Music? Nah, that'd take too long; you want to listen to music, not fuss around. Fortunately, the \$5 Move to Apple Music can help you out. Working with both Spotify and Rdio, this app

### MOVE TO APPLE MUSIC 1.1



AT A GLANCE:

It can't match everything in your Spotify or Rdio playlists, but it can cover a vast majority of songs and save you a lot of work, especially if you have a lot of playlists you want to bring into Apple Music.

PRICE WHEN RATED:

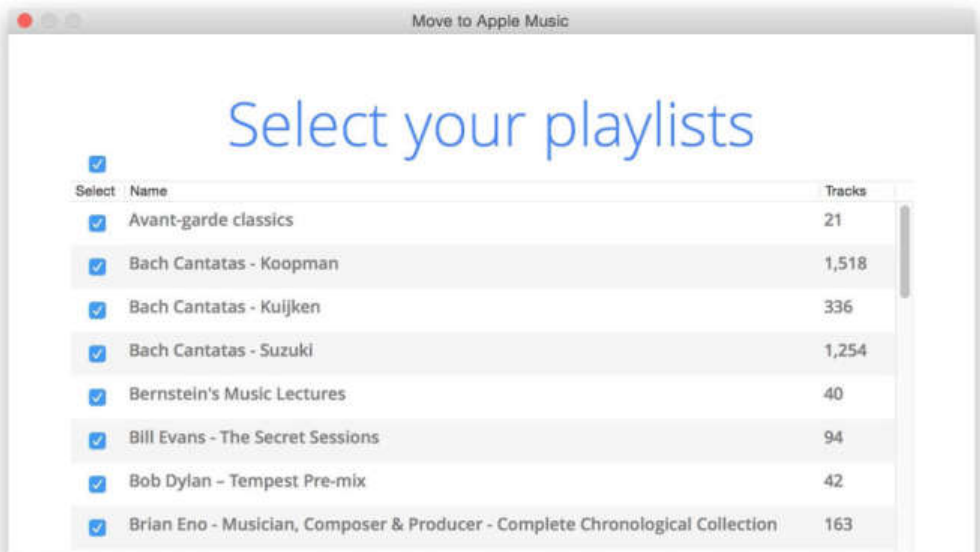
\$5

makes a pipeline between your accounts, finding what you've stored on the former services, and adding them to your Apple Music library.

Launch iTunes, fire up Move to Apple Music, and then choose which service you want to import music from; for now, it's limited to Spotify and Rdio. (Note that if you're using Beats Music, Apple makes this migration a snap.) Follow the instructions to allow Move to Apple Music to be able to slip itself in between the two. This requires that you click the heart button on any song or playlist; Move to Apple Music detects this, and uses the information it gleans to be able to add music to your Apple Music library. (It leverages the public application programming interface for Apple Music, querying it for specific songs, to be able to add them to your library.)

Next, you see a list of playlists; choose the ones you want to import. Move to Apple Music looks at your songs on Spotify or Rdio, one at a time, and attempts to match them with songs on Apple Music. This isn't a quick process; the app only checks one song every 30 seconds, in order to "keep the iTunes API happy."

**CHOOSE WHICH PLAYLISTS**  
to import into your Apple Music library.





## MOVE TO APPLE MUSIC

Bear in mind that at 30 seconds a song, it can take a long time to import your music. And Move to Apple Music, while practical, doesn't match everything. Some songs are tagged differently on the two services, and some songs simply aren't available on Apple Music. I imported music from my Spotify account, and, in my tests, the results varied widely from about 80 percent matches for rock or jazz to less than 50 percent for classical music.

When Move to Apple Music has finished, you can download text files of your playlists, which you can then import into iTunes (File → Library → Import Playlist), so iTunes can regroup your songs in the same structure as on Spotify or Rdio. You can also download a list of songs that weren't found, so you can, if you wish, try and manually find them on Apple Music.

The app is not without issues. The first couple of versions of Move to Apple Music were a bit buggy, but the developers have worked very hard to fix these issues, and have released a number of updates in the first few days of the app's existence. The time it takes to import everything may throw you off; when I first ran the app, it told me it was going

**MOVE TO** Apple Music  
importing songs.



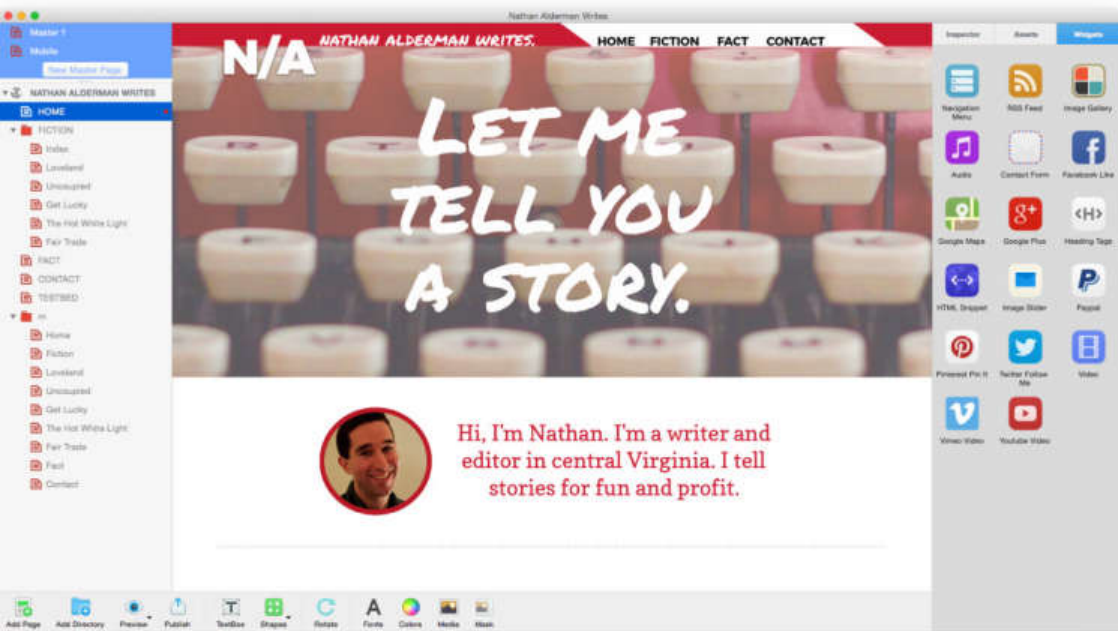
thing may throw you off; when I first ran the app, it told me it was going to take 188 hours (I have some 22,000 tracks in Spotify playlists). I then decided to only import a few playlists at a time, rather than wait for everything to get copied.

I'd like the matching to be better, but I understand that, especially for classical music, this isn't easy. I have lots of long playlists of classical music on Spotify, many of which were compiled by [ulyssestone](#), on his [Spotify Classical Playlists](#) website. I understand the limitations of Move to Apple Music, and I only wish it could be more efficient.

**THE TIME IT TAKES TO IMPORT EVERYTHING MAY THROW YOU OFF; WHEN I FIRST RAN THE APP, IT TOLD ME IT WAS GOING TO TAKE 188 HOURS (I HAVE SOME 22,000 TRACKS IN SPOTIFY PLAYLISTS).**

### **BOTTOM LINE**

If you've got a music collection on Spotify or Rdio, it's a no-brainer to spend \$5 and have much or most of it imported into Apple Music; it'll save you a lot of time. You just need to be patient. ■



WEB AND COMMUNICATIONS SOFTWARE

## EVERWEB 1.8.2: WELL-CRAFTED WEB DESIGN APP KNOWS ITS LIMITS AND OFTEN SURPASSES THEM

BY NATHAN ALDERMAN

**NO SINGLE MAC WEB DESIGN APP** offers the ideal blend of power and accessibility. But Rage Software's EverWeb ([everwebapp.com](http://everwebapp.com)) comes closer than most, helping you build attractive, useful sites with minimal hassle.

**EVERWEB'S CLEAN**, logical interface puts everything right where you need it.

## A WEB-DESIGN APP THAT PLAYS NICE

Every element of EverWeb's simple interface is easily in reach when you need it, and out of your way when you don't. The central layout window's surrounded by your site structure on the left, a toolbar along the bottom of the screen, and a multi-tabbed Inspector pane for adjusting individual elements on the right.

EverWeb includes numerous modern, fully editable templates, each with multiple page types and a mobile version. You can also build sites from scratch with a pleasantly powerful layout engine—though I did sometimes wish for adjustable guides or a grid to keep my layouts tidy. I used the Master Pages feature to create a common header and (after some initial confusion and a trip to the help files) footer for every page on my site.

EverWeb supports full-width design elements, too, but it's tough to center-align them with other objects. The program seems to orient itself by the center of your monitor, not its own window, so elements get shifted too far to one side.

Still, I felt like EverWeb helped me far more than it fought me. Plentiful, well-made tutorial videos make its modest learning curve even gentler, with many more answers waiting in its searchable online knowledgebase.

## SIMPLE LOOKS, SURPRISING DEPTH

EverWeb lacks ultra-precise CSS styling. You can apply uniform borders, padding, and drop shadows, and its CSS-based shapes offer adjustable color settings for different rollover states—useful for making buttons. But you can't fine-tune styles for individual sides of an object, create and manage custom CSS classes, or adjust sitewide styles beyond default link and shape colors.

EverWeb doesn't build in



### EVERWEB 1.8.2



#### AT A GLANCE

With a deep feature set and a well-thought-out interface, EverWeb is one of the best options for new or casual web designers.

#### PROS

- Reasonably extensive abilities and drag-and-drop widget library
- Smart design is easy to learn and use
- Extensive, free video tutorials and free or inexpensive add-ons

#### CONS

- Limited support for mobile/responsive design or other advanced features
- Some discrepancies between how fonts render in the app and on your site

#### PRICE WHEN RATED

\$80 software only (non-mandatory \$50 renewal required for updates/support after 365 days of ownership); \$100 software and Hosting Lite; \$200 software and Hosting Pro.

#### COMPANY

[ragesw.com](http://ragesw.com)



blog support, though a help video promises that feature in future versions. And like many of its rivals, EverWeb doesn't do HTML tables or bullet-pointed lists, unless you want to write that code yourself.

Still, the drag-and-drop widgets EverWeb does offer are impressively powerful and intuitive. In seconds, I assembled a decent-looking photo gallery and an attractive image slider, dropped in a Google map, built a contact form, and embedded HTML5 audio and YouTube video to a test page. All worked perfectly when viewed in my browser.

EverWeb's CSS menu widget works very well—up to a point. It updates automatically based on your site's structure, and you can easily exclude pages from it if you don't want them listed. With little effort, you can adjust the menu's look, spacing, and rollover behavior. But the menu's designed to work best horizontally; you can squeeze the options into a vertical column, but any drop-down submenus will appear awkwardly on top of the successive links. There's also no way to shrink the menu down to a space-saving icon for mobile pages.

I was especially impressed by the PayPal widget, which hooks smartly into that service's infrastructure to create moderately full-featured online stores. Few rival programs offer any e-commerce option this powerful,

**WHILE IT DOESN'T OFFER** precise CSS styling, EverWeb's options are still good enough to make a slick, modern-looking site.

You'll find even more widgets hosted on or linked from EverWeb's site. Many are free, while others come in \$6 packs grouped by type and capabilities.

## WE CAN WORK IT OUT

**AN IMPRESSIVE** selection of readymade widgets, each easily customized, enable you to enhance your site with photo galleries, image sliders, and more.

For example, there's no built-in roster of web-safe fonts to use, and no simple way to add your own. But EverWeb's smart enough to add





**AS YOU DESIGN**, bear in mind that some fonts might not display quite the same in your browser as they do in EverWeb.

necessary code enabling any Google Fonts you've already installed on your computer. (I did notice that EverWeb displayed Google Fonts oddly, pushing them farther down from the top of their text boxes than the browser did. But once you know that quirk, you can adjust your design accordingly.)

The program's help site also links to step-by-step instructions for using EverWeb's assets library and custom header and footer code to slip third-party web fonts into your design—a little extra work, but still more than most rivals can offer.

And while EverWeb doesn't offer adjustable breakpoints or other responsive design features, it does provide the aforementioned mobile-ready templates, plus easy options to redirect a page to a mobile counterpart.

You'll have to create extra pages—consuming extra server space and bandwidth—to support mobile users. And EverWeb assumes your site's at the top of your server's directory structure. If it's buried a few folders deep instead, the redirect feature breaks, and you'll have to manually specify the full address of each mobile page, rather than just picking its name from a list.

This rudimentary support is still better than none. Compared to my experiences trying to set up responsive designs in other apps, I found it a lot easier and less aggravating to just build dedicated mobile pages here.

It took me about 12 hours total to build both desktop and mobile versions of a sample site. EverWeb's resulting code wasn't the cleanest,

duplicating CSS stylesheets and JavaScript code on every page in ways that increased file sizes and load times. But EverWeb's creators say version 1.9 will add svelter, smarter coding.

**EVERWEB'S RESULTING CODE  
WASN'T THE CLEANEST,  
DUPLICATING CSS STYLESHEETS  
AND JAVASCRIPT CODE ON EVERY  
PAGE IN WAYS THAT INCREASED  
FILE SIZES AND LOAD TIMES.**

### **BOTTOM LINE**

EverWeb doesn't do everything perfectly. But it does enough things well, and does them in such a considerate, user-friendly way that I consider it one of my favorite web apps among those I've tested. Pro designers will want a program with more oomph, and complete novices have even simpler alternatives that'll still yield good results. Everyone in between should definitely give EverWeb a try. ■





PHOTOGRAPHY SOFTWARE

## POWERPHOTOS: TAKE BETTER CONTROL OF YOUR PHOTO LIBRARY IN PHOTOS FOR OS X

BY GLENN FLEISHMAN

**WHILE PHOTOS IS STREAMLINED AND ZIPPY** compared to iPhoto, its stripped-down approach can be confusing. PowerPhotos takes some of the shock out of Photos for OS X by helping bridge the gap between old and new. Fat Cat Software's app offers assistance in migrating iPhoto libraries, managing multiple Photos libraries, and viewing images and videos in a different way. It's more flexible, to be sure.

When launched, PowerPhotos shows—under an Operations listing—Migrate iPhoto Libraries, which can also be selected later from the File menu. This lists all iPhoto libraries that it can find via Spotlight; you can

### POWERPHOTOS 1.0



#### AT A GLANCE:

PowerPhotos is an extremely useful addition as an enhancement for any Photos user trying to perform tasks that fall outside of Photos' restricted purview.

#### PROS:

- Manages multiple Photos libraries
- Provides a different approach to search results
- Finds duplicates

#### CONS:

- Can't merge Photos libraries

#### PRICE WHEN RATED:

\$20; \$30 bundle with iPhoto Library Manager

#### COMPANY:

[fatcatsoftware.com](http://fatcatsoftware.com)

add others manually.

The migrate operation lets you manage creating Photos-compatible libraries without babysitting the Photos app, and shows progress and errors. It can also migrate several libraries from the same interface instead of requiring multiple iterations of quitting and launching Photos with the right key held down.

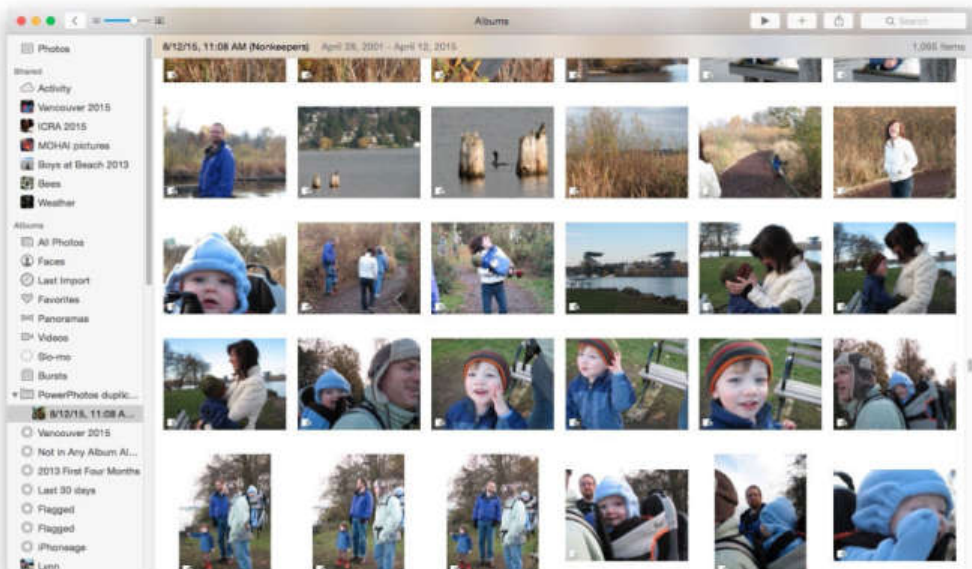
PowerPhotos doesn't merge Photos, iPhoto, or Aperture libraries. Its predecessor, iPhoto Library Manager, can merge iPhoto and Aperture libraries.

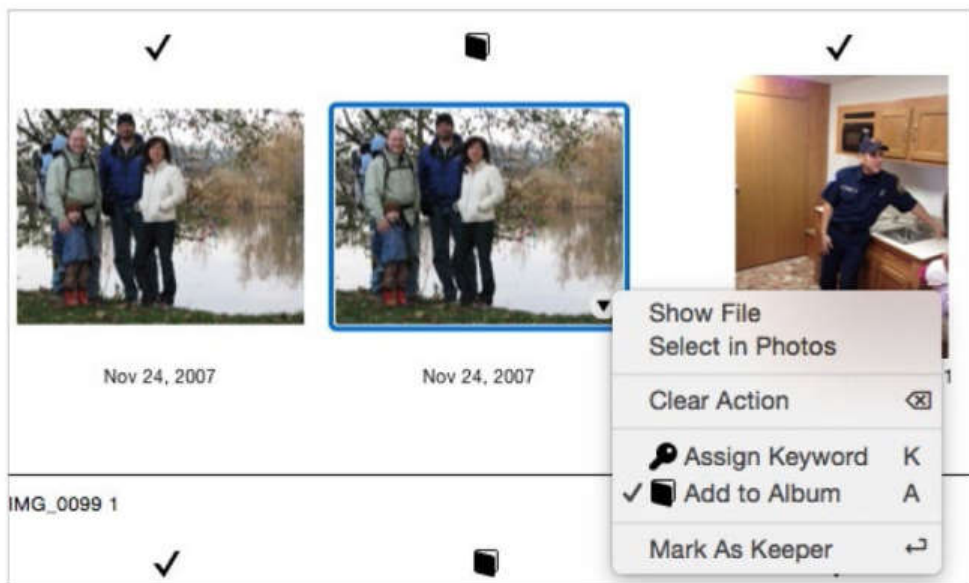
## FINDING DUPLICATES

Once you have Photos libraries migrated or created, you can use

**THE MIGRATE OPERATION  
LETS YOU MANAGE CREATING  
PHOTOS-COMPATIBLE LIBRARIES  
WITHOUT BABYSITTING THE  
PHOTOS APP, AND SHOWS  
PROGRESS AND ERRORS.**

**POWERPHOTOS' FIND  
DUPLICATES** feature creates  
an album with all the images  
marked as duplicates that  
you accepted.





PowerPhotos' duplicates feature (File → Find Duplicates). I apparently have 43,169 photos in my master Photos library, and I hadn't spotted many duplicates in my perusal. PowerPhotos found over 1,000! If you have multiple Photos libraries, you can scan across them, too.

The app gives you several choices for deciding how to let it identify duplicates, including excluding hidden photos, images marked with "duplicate" in the keyword field, and photos that it's already placed in a special album. Comparisons can be based on the content of an image (Exact Match), which looks for byte-for-byte identical versions of either the original image or any modified version you've stored. Or, you can opt for filename and date, which includes minor variations in filenames commonly used with duplicates.

Even with my huge library and using exact matches, it only took about 20 minutes on a 2014 Mac mini while I continued to work on tasks in other apps. Once the pass is complete, you can review pairs or multiples of images and make sure your matches are correct. If not, you can switch which image in a set you want to be the "keeper," or discard the match entirely, among other options.

**AN IMAGE DEEMED** to be a duplicate that should be discarded can be swapped to be the one kept, among other operations.

When you're done reviewing and click Apply, instead of deleting the files or moving them to the trash, the images are placed by default into a special duplicates album, which you can then review in Photos to dump into the trash.

## LIBRARY MANAGEMENT

While you might use Find Duplicates once or rarely, the ability to easily review and switch among multiple Photos libraries is a must-have feature for many users, based on the email we've received at *Macworld*. Some iPhoto users set up multiple libraries, one per year, or with other divisions that they want to maintain and have access to. PowerPhotos can't overcome iCloud Photo Library's limit: one Photos library is a master to which iCloud syncs.

With a Photos library selected, PowerPhotos lets you select Moments as items in its navigational column. Albums and Smart Albums are also

**THE FIND DUPLICATES** feature allows exact image matching or matching against a combination of filename and date.

### Find Duplicates — Setup

#### Choose Libraries To Search

Drag in one or more libraries you would like to search for duplicate photos.



Photos Library

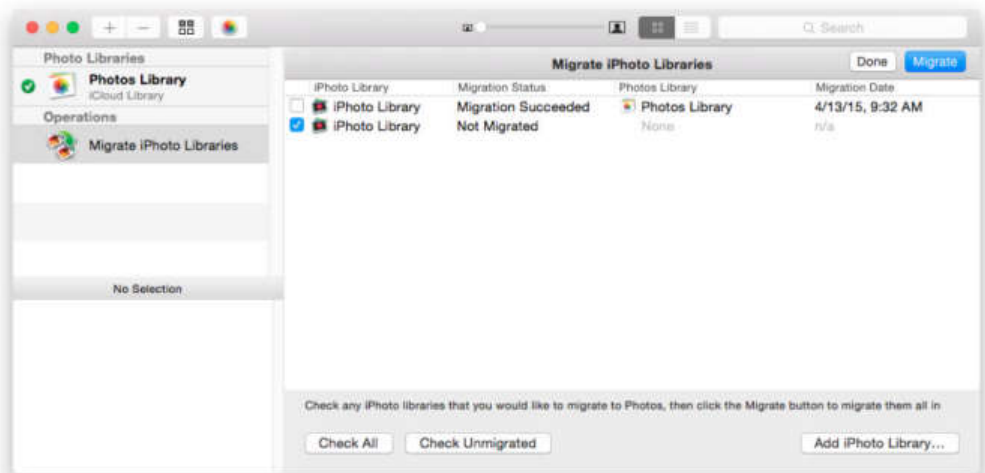


#### Comparison Options

Specify what tests should be done to identify duplicate photos.

- ☒ Exact match
  - ☐ Compare original photos
  - ☒ Compare modified photos
- ☐ Match on filename + date

Exclusions...

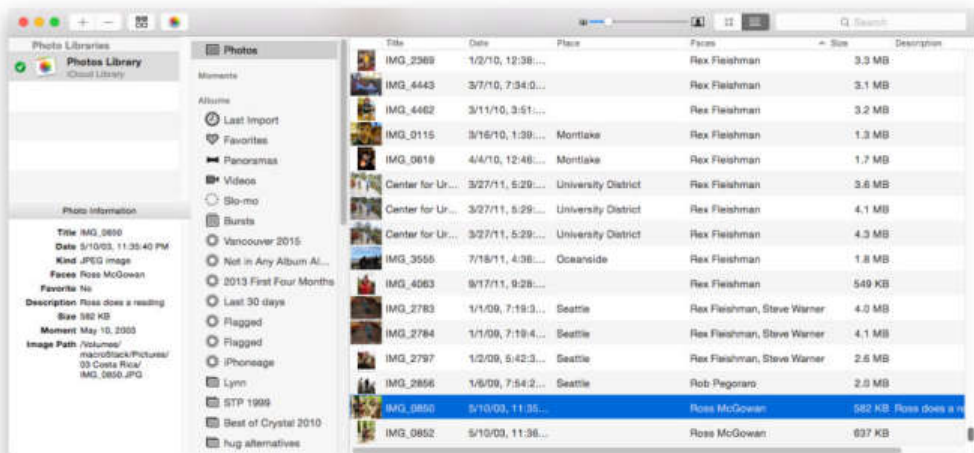


shown. But where it shines compared to Photos is with its list view and as a middle ground for search between Photos very basic option and Smart Albums.

Click the list icon at upper right, and PowerPhotos shows a thumbnail that can be sized from tiny to enormous, and then a host of associated data, allowing easier scanning through and sorting. By default, it just shows a few items, like Title and Date. But pop into View → Show Columns, and you can add Description, Place, Faces, Size, and more.

This works well in association with its find feature. Type in a word or more, and PowerPhotos searches across all of an image's file data and metadata. But then you can opt to broaden to search across all libraries the app is managing, and narrow to match that text only across Title, Filename, Keywords, Faces, Place, Description, and Moment. While you can achieve this with a single library using Smart Albums in Photos, it's not interactive nor can it provide the compact density of a detailed list.

**MIGRATING LIBRARIES** from iPhoto and Aperture to Photos can be managed with more élan within PowerPhotos.



## BOTTOM LINE

PowerPhotos is an extremely useful addition as an enhancement for any Photos user trying to perform tasks that fall outside of Photos' restricted purview. It's also worth the price for one-time use if you're just trying to move iPhoto libraries over and remove duplicates after doing so across all of them.

Fat Cat offers PowerPhotos for \$20 or as a bundle with iPhoto Library Manager for \$30. Owners of iPhoto Library Manager 4 get PowerPhotos at no cost. Fat Cat may add a Photos library merge later, but it's not guaranteed as a future feature. ■

**THE LIST VIEW** In PowerPhotos provides a lot of detail in a compact format for quick scanning.



WEB AND COMMUNICATIONS SOFTWARE

## RAPIDWEAVER 6.2.3: A GOOD START FOR BUILDING WEBSITES (ACCESSORIES SOLD SEPARATELY)

BY NATHAN ALDERMAN

**IF YOU WANT TO QUICKLY ASSEMBLE** a sleek website without too many bells and whistles, RapidWeaver ([realmacsoftware.com/rapidweaver](http://realmacsoftware.com/rapidweaver)) provides an excellent option. If you want to do even more with your site, RapidWeaver can help you there, too—but it'll cost you a good deal extra.

### NOT BAD FOR THE BASICS

A freshly installed copy of RapidWeaver 6 feels like a more sophisticated version of Karelia's friendly, super-simple Sandvox ([go.macworld.com/sandvox](http://go.macworld.com/sandvox)). Both programs allow you to quickly build up the structure of your site in a left-hand navigation menu, selecting from a variety of different page types, including contact forms, blogs, and photo galleries. Both build in FTP capabilities, so that you can create and upload your site without switching to another program.

### RAPIDWEAVER 6



#### AT A GLANCE

RapidWeaver will let you build a good-looking site right out of the box, but to take full advantage of its power, you may need to buy expensive add-ons.

#### PROS

- Includes five modern, responsive themes, with support for blogs, podcasts, and more
- Built-in FTP to easily upload your site
- Flexible, extensible framework with tons of user-created add-ons

#### CONS

- No WYSIWYG design tools, and limited ability to customize designs
- More-powerful add-ons and new themes are often expensive
- Photo galleries render poorly in some themes

#### PRICE

\$80

#### COMPANY

[realmacsoftware.com](http://realmacsoftware.com)



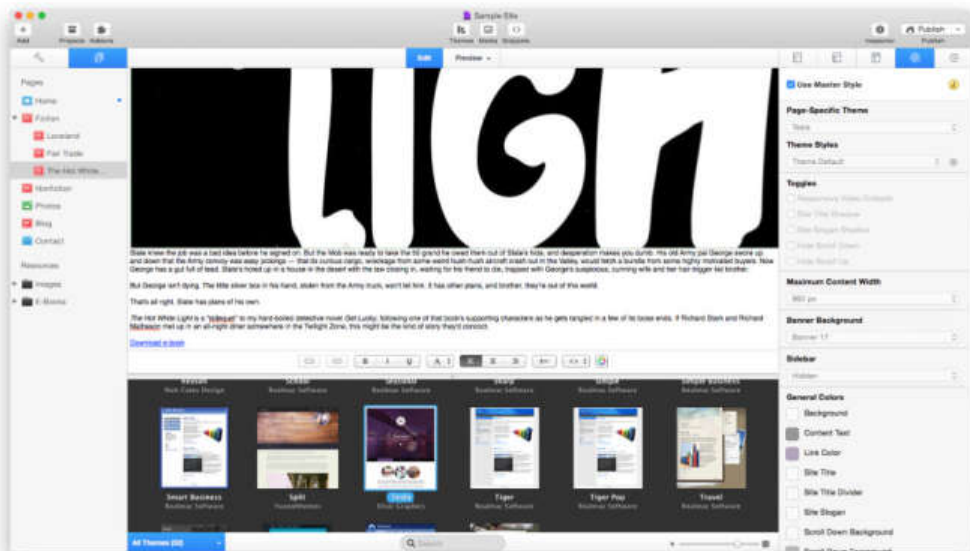
And both offer a wide selection of premade themes to apply to your content.

Most of RapidWeaver 6's themes, like Sandvox's, feel dated—one theme's name clearly betrays its 2007 origins. But the new version does include five attractive, modern themes that support responsive design. Cleverly, the themes come preset with versions for multiple devices and screen sizes, ensuring that your site will look equally good on an iPhone, an iPad, or a Mac.

That's one of the smartest, least headache-inducing solutions for responsive design I've seen among the web design programs I've tested thus far. But it also exemplifies one of RapidWeaver 6's biggest trade-offs: You can present your content within an appealing template, as long as you're OK with surrendering most of your control over how your site will look.

To its credit, RapidWeaver's Master Styles settings let you tweak each design's colors and font sizes, and sometimes cycle between different preset header images. But you can't easily replace those stock images with

**RAPIDWEAVER SEPARATES** the content of your site from its look and feel; after you've edited the information on each page, you can see how it'll look in various themes.





one of your own. In some themes, you can't change fonts, while others only offer a handful of different options. And beyond adding or removing sidebars, you have very little control over the layout of individual pages.

## SPLIT PERSONALITY

RapidWeaver makes the odd decision to keep its edit and preview modes separate. You make changes in the former, then click the adjacent tab to see the results in the latter. This works better for some page types, such as blogs and contact forms, than for others like basic styled text. And while taking away the styling does allow you to concentrate on the substance of your site, I quickly tired of having to flip between modes to get even a rough idea of how my changes would actually look.

RapidWeaver gets points for augmenting its basic text styling abilities with bullet-pointed and numbered lists—a surprisingly rare feature in modern Web editors—and the ability to determine whether any images you drag and drop into your layout will align left or right. But that's about the limit of your ability to customize the text or how it appears.

Once you give up any hope of making your site look like anything other than what your chosen theme's designer intended, RapidWeaver

**RAPIDWEAVER DOESN'T OFFER** WYSIWYG editing—you can look at how your site will appear online, but you can't make changes in that view.

gets a lot easier to work with. I ultimately pieced together a small but appealing site in roughly an hour.

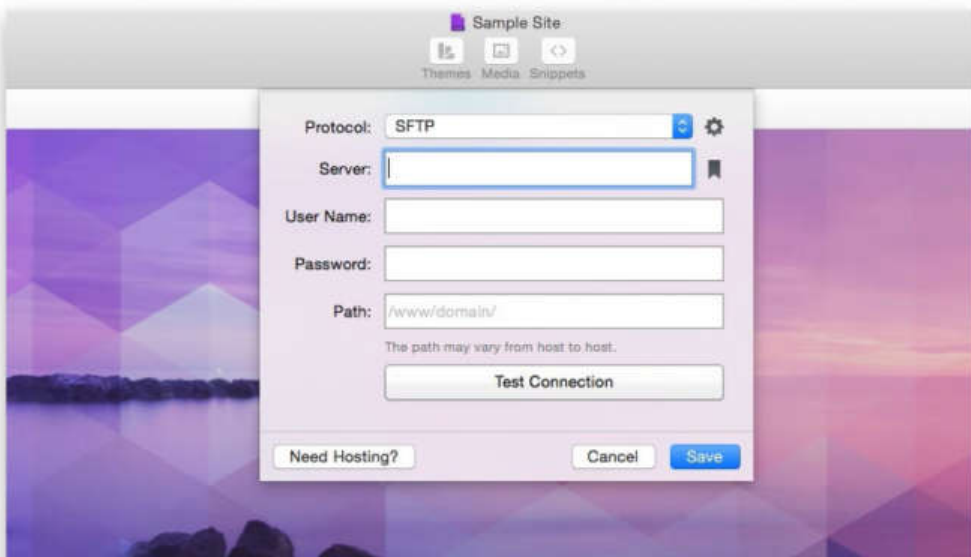
## MOSTLY HITS, WITH A FEW MISSES

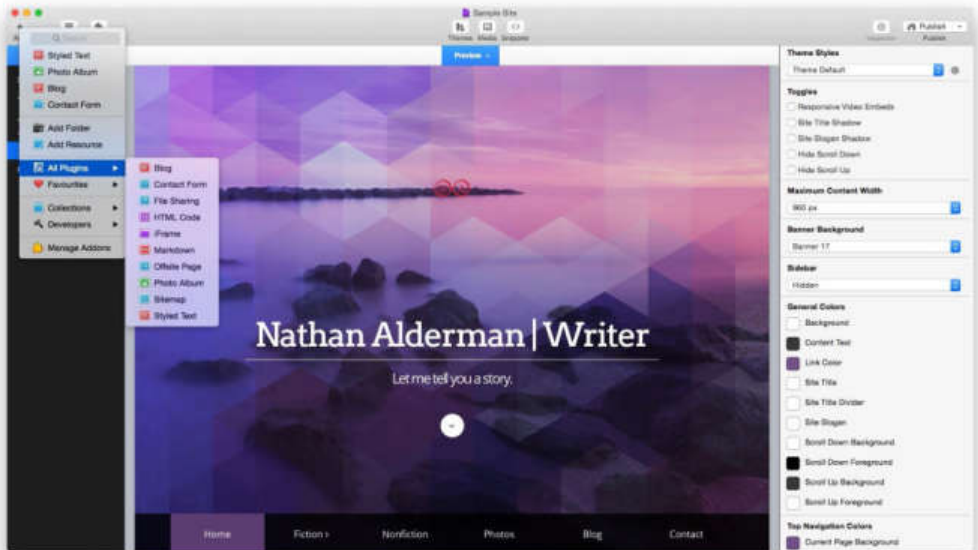
RapidWeaver 6's blog and contact form pages impressed me with their balance between rich features and simplicity. You can add new blog entries or contact form elements in an iTunes-like list view, then edit each of those items individually. RapidWeaver's blog features include thoughtful, thorough support for podcasts, with spots to upload audio files and add episode descriptions. And its contact forms will work automatically as long as you upload them to a server running PHP.

I wasn't so wild about its photo gallery page, though. Adding photos and captions gave me no trouble, but in two of the themes I tested, images displayed in bizarre and unappealing ways, either cut off in a self-playing slideshow or overlapping each other's captions in a grid view.

RapidWeaver's FTP support also required some trial and error.

**THOUGH IT'S SLIGHTLY FINICKY,**  
RapidWeaver's built-in  
FTP capabilities add to its  
convenience.





Even after the “test connection” button gave me the all clear, my site would still fail to upload. I was mere moments away from sending Realmac a help email—after following the excellent directions on their comprehensive online support site—when a lucky glance through the Console logs they’d asked me to send helped me figure out that I’d slipped in a / to the directory path that shouldn’t be there. Even then, my upload failed the first time because of “missing files,” though a subsequent attempt worked just fine.

### KEEP YOUR WALLET HANDY

If you want to exercise more of your own creativity with RapidWeaver, prepare to pay more than the basic program’s \$80-ish price tag. Realmac Software maintains a deep, robust, and thriving repository of add-ons created and reviewed by enthusiastic RapidWeaver users. The offerings range from beautiful, responsive-ready themes to powerful new page types that dramatically expand what RapidWeaver can do.

The popular Stacks plug-in adds drag-and-drop multicolumn layouts, and can itself be customized with additional page elements from other users. Other plug-ins provide basic content management systems,

**EVEN WITHOUT EXTRA** add-ons, RapidWeaver provides a decent selection of page types and well-designed themes with which to build your site.

online stores and payment processing, and more. I don't begrudge a well-earned payday to the hard-working folks who made these tools. But at \$25 or more a pop for many themes and plug-ins, the cost could quickly prove prohibitive to users on a budget.

Realmac also makes money by charging subscriptions for advanced video tutorials on its support site, including guides to Stacks and other plug-ins. Fortunately, Realmac offers a good series of basic overviews for free, along with the aforementioned helpful text guides.

**IF YOU DON'T MIND POURING  
YOUR CONTENT INTO  
SOMEONE ELSE'S SLICK  
DESIGN, RAPIDWEAVER'S A  
GREAT CHOICE FOR BUILDING  
SMART SITES IN A SNAP.**

## **BOTTOM LINE**

If you don't mind pouring your content into someone else's slick design, RapidWeaver's a great choice for building smart sites in a snap. Same goes if you want to easily build a more personalized and powerful site, and don't mind burning cash to do so. But if you want to indulge your creative side and craft a more personalized site for a one-time price tag, rival offerings like Blocs and Sparkle might prove more your speed. ■

# Hot Stuff

What We're Raving About This Month



## GRIFFIN LIGHTRUNNER

Finding a comfortable running armband for the 4.7-inch iPhone 6 can be a challenge, but the \$40 LightRunner ([griffintechnology.com](http://griffintechnology.com)) is one of the best out there. Its adjustable neoprene band is comfortable even during longer runs of 5-plus miles, and a mixture of cloth and rubber will hold your iPhone securely in place without ever letting it touch your skin. The LightRunner also has a window that protects the phone's screen while still recognizing touch, and there's even a cutout for the Touch ID fingerprint scanner. But the LightRunner's main purpose is safety: It has built-in flashing LED lights for night runs, and you can even choose between a slow, steady flash or a fast one. —CAITLIN MCGARRY



## **MONOWEAR NYLON FOR APPLE WATCH**

Monowear's \$60 Nylon band may seem basic, but this brightly-colored strap is eye-catchingly different from any other third-party Watch band out there. It's sturdy, and features a thick chrome buckle and two chrome loops that are sewn in place. The band comes in black, red, turquoise, pink, purple, gray, and olive green; all of the colors feature bright chrome hardware, and the black, gray, and olive green colors also offer the option of black hardware. Monowear ([monoweardesign.com](http://monoweardesign.com)) is all about matching the adapter color to your Watch casing, so you can choose matte silver or polished silver adapters to create a customized look.—SARAH JACOBSSON PUREWAL



# Hot Stuff

## STIR KINETIC DESK M1

Stir's \$2990 Kinetic Desk M1 ([stirworks.com](http://stirworks.com)) is a well-built, comfortable workstation with an electric motor that can quickly, smoothly adjust between sitting and standing positions. But it's more than just a desk that goes up and down: It has a 5-inch capacitive touchscreen embedded in the surface, sensors that know if you're at the desk or not, and artificial intelligence to learn your habits and nudge you toward healthier ones. Once you create your account with your height, weight, gender, and goals, the screen will track your sitting and standing movements and show your progress over each day, week, month, or year with your goal clearly marked. When it's time to switch positions, the desk uses an optional feature called WhisperBreath to prompt you—it subtly raises itself ever so slightly, and then lowers back down. Yes, the Stir Kinetic Desk M1 is expensive, but if you can afford it, it's hard not to like.—**SUSIE OCHS**



You might know **Joshua**.  
He loves video games, and he  
owns enough to know they're not  
all meant for kids. That's why he  
reminds his friends (at least the  
ones that have kids) that they all  
have **big black letters on the box**  
to help parents find the ones that  
are best for their families.

You can learn about those  
ratings at **ESRB.org**

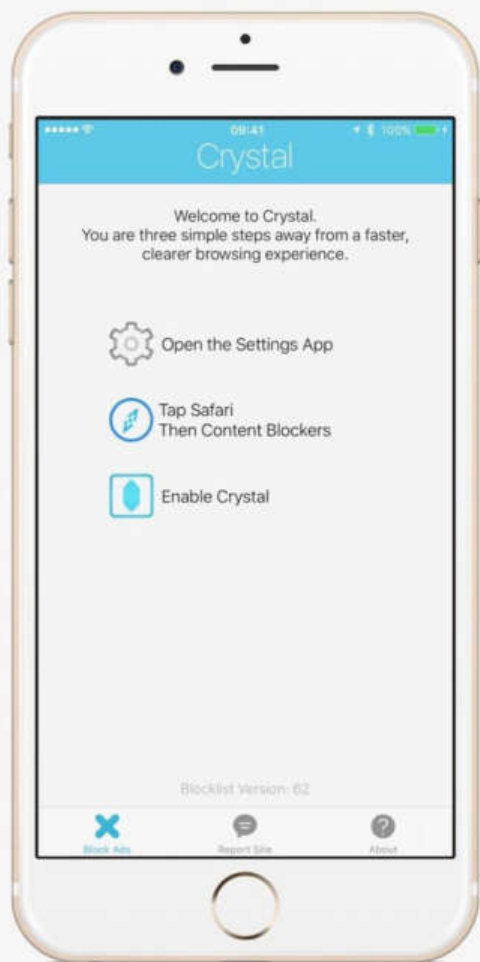


Los Angeles, CA



ENTERTAINMENT SOFTWARE  
RATING BOARD





## What lies beneath: What you need to know about content blockers in iOS 9 Safari

iOS 9's ability to plug apps into Safari that handle how items are retrieved on webpages will change the way we mobile surf.

BY GLENN FLEISHMAN

**A**pple let loose a bombshell at WWDC in June for websites that feature advertising: Safari in iOS 9 would support Content Blocking Safari Extensions ([go.macworld.com/blockex](http://go.macworld.com/blockex)); so, too, will El Capitan, although OS X's Safari already allows extensions of all sorts. Apple didn't put too fine a point on it. These extensions ... well, they block content. (They don't apply to Apple's iOS 9 News app's ads nor its iAds in any app.)

Many oceans of virtual ink have been spilled over what it will mean. To sum up, sites that rely on mobile visitors who use iOS to generate advertising views and click-throughs as part of how they fund themselves may be out of luck.

To try it first hand, I tested three beta content blockers against the latest public iOS 9 build: Adamant, Blockr, and Crystal. (That they go A, B, and C is absolutely coincidental!) These extensions are from developers who plan to release versions when iOS 9 ships.

What I found on newer iOS devices is that the time to load isn't affected as much as what's being loaded that you don't see, which continues to be downloaded long after you're interacting with a page.

I tested several popular news and Mac-related sites using the fourth-generation iPad (late 2012 model). I first used Safari's settings to clear any cached data (Settings → Safari → Clear History And Website Data), to make sure already loaded JavaScript,

## Load Time after Web Cache Reset

(IN SECONDS)

Site	No blocker	Blockr enabled
Macworld	12	6
iMore	7	4
CNN	23	5
Daring Fireball	2	2
Aftonbladet	6	4
Forbes	3	2
NY Times	3	4
Le Monde	5	5
Vox	7	5
Buzzfeed	7	6
Huffington Post	5	5
The Guardian	5	3

media, and CSS didn't distort load time. I then ran a stopwatch against each page load from the moment I tapped the link to the moment the page was usable.

You'll see many comparisons that tracked from entering a URL to when the final referenced item was loaded; I didn't employ that, because I was



looking at how long it takes for a page to be usable. The difference is minimal to substantial, depending on the site.

Another interesting tidbit: Many iPad or mobile-optimized sites aren't substantially different with content blockers installed or not. Even sites that take an egregiously long amount of time to load on the desktop and are festooned with stuff other than content have clearly migrated rapidly toward more stripped-down mobile presentation.

It's interesting to look at BuzzFeed, a pioneer of native advertising, in which editorial content is developed for advertisers and presented as sponsored stories or other items. The

homepage for BuzzFeed with and without Blockr enabled to block ad networks and privacy-dubious scripts differed only in about a second of load time, and only one advertising element disappeared.

The biggest differences were seen behind the scenes: By blocking a variety of non-content items from downloading, megabytes per site are saved on the first load. (Some of that is cached for subsequent loads, so it's not overhead for every page.) And JavaScript-based tracking of your behavior from blocked scripts while you use a site, which can include keeping track of how long it takes you

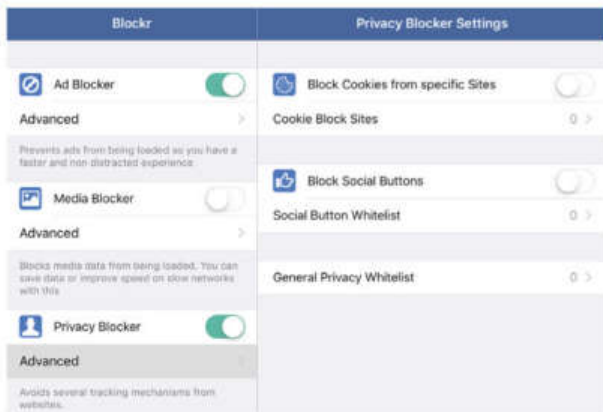
**HERE'S CNN**, filtered (left) and unfiltered (right).

to perform a task, what you hover over, and what you click, is fully disabled. This reduces battery drain while also improving a site's interactivity. (In July, *Monday Note*'s Frédéric Filloux ran some numbers on desktop ad ([go.macworld.com/monday](http://go.macworld.com/monday)) blocking and mobile page loading that are worth reviewing.)

Blockr's unique feature is an option to block all media. While this may seem extreme, if you're on a slow connection (like T-Mobile users roaming internationally on 2G or a bad hotspot network), or you have a bandwidth cap or are charged for usage, such an option keeps the web available without having to switch to a specialized browser—and, wow, do pages load even faster.

## HOW CONTENT BLOCKING WORKS

Content blockers are much simpler even than OS X Safari extensions, which are written in JavaScript. Instead, they're a series of instructions, rather than a software program. Apple examines all the loaded content-blocker instructions, compiles them to execute faster, and runs through them for every single retrieval, whether a full webpage or any media, style sheets, scripts, or other content retrieved from a page. This approach to performance makes them ideal for mobile Safari, but also



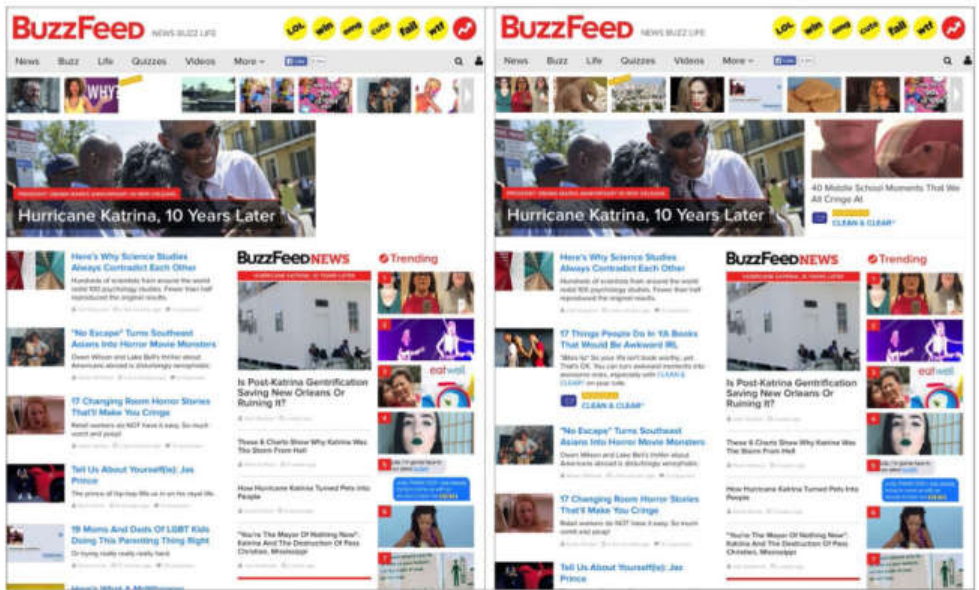
will aid with filtering faster (and using less battery power on laptops) for desktop Safari.

The filters are written as a series of statements about what URL or URL pattern is to be affected, and then what behavior should take place against it. This includes an optional resource type, such as an image, document, a pop-up, and the like, so that only that kind of data is affected. (For all the technical details, the WebKit team's Surfin' Safari blog entry ([go.macworld.com/webkit](http://go.macworld.com/webkit)) has oodles.)

For any matched item, it's also possible to filter depending on whether it's fed from the same origin as the webpage that's loading it, or from a third-party site. Ad networks and other tracking systems have ways around this, such as running subdomains that are customized to the sites that are feeding them out.

**BLOCKR PROVIDES** a number of configuration options about what precisely gets filtered out.





Finally, a filter doesn't have to block a page entirely. While it can do so, it can also just strip all cookies or strip specific CSS (Cascading Style Sheet) selectors. These two options have two dramatically different purposes. Cookies are one way to feed a unique identifier to a browser, which it stores and then sends back each time it requests a page or other item from the same server (or sometimes, same domain). Unfortunately, there are a lot of other ways to bypass the limitations of regular browser cookies by using evercookies and supercookies ([go.macworld.com/cookies](http://go.macworld.com/cookies)). Blocking browser cookies won't prevent determined

tracking networks from seeding other kinds of IDs. Apple could expand the filters to disallow access to some HTML5-based features that are used to keep a cookie persistent when it shouldn't be set in the first place or after it was intentionally deleted.

Stripping out CSS might sound a bit obscure if you don't design or develop webpages, but it's straightforward. HTML defines the bones of a page, like the girders of a skyscraper, and contains the innards—text and images and other stuff—just like an office contains workers and furniture and printers. CSS is the glass and metal panels covering the skyscraper, while also painting the

**BUZZFEED'S NATIVE ADVERTISING** approach means there's very little difference between a filtered (left) and non-filtered (right) page.



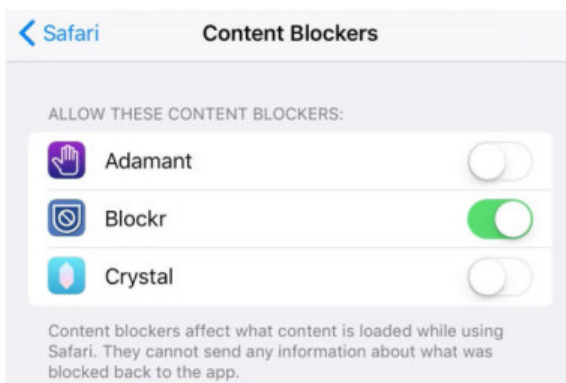
outside and creating the walls and cubicle barriers: It defines how things appear, including the dimensions and placement of both fixed layout areas and boxes that can seemingly float above the page.

A CSS “selector” defines the scope of what style definitions apply to. They can be used to attach to an HTML element, reused for multiple parts of a page, or define a specific structure, which is used for those floating boxes among many other purposes. By allowing a blocking filter to strip out specific selectors, it can suppress advertising overlays or other annoying or intrusive behavior.

Apple allows any combination of content-blocking extensions to be enabled at once via Settings → Safari → Content Blockers. And you can override all content filters by holding down the reload button for a few seconds. Instead of a simple reload, it becomes a “reload without filtering.”

## HOW THE FILTERS WILL WORK IN PRACTICE

Content blockers have to be packaged inside of apps, though the apps themselves can be exceedingly simple. In testing just three extensions, I’ve already seen a lot of variety. When we get to the release stage for iOS 9, I expect a huge ecosystem of filter apps, some more sophisticated and configurable than others.



Some will be simple. At this stage of development, Crystal is just a holding place for rules set up by the developer. Adamant has a couple of settings. Blockr has a full configuration screen with three kinds of blocking types, and the ability to whitelist in the app portion. We’ll definitely see a lot of baroque options over time. If Ghostery winds up implemented as an extension, it wouldn’t be able to show its pop-up display, but could offer all its intricate and per-network choices on the app side.

There will definitely be a market for apps that focus on blacklisting and whitelisting. The former is easier, because it’s a subset of everything on the Internet, and developers will carve out area like anti-phishing and anti-malware, which will be a great thing to install for relatives and friends who don’t care about technology, but want to browse safely.

**iOS 9 LETS YOU** select one or more installed blockers to use with Safari.

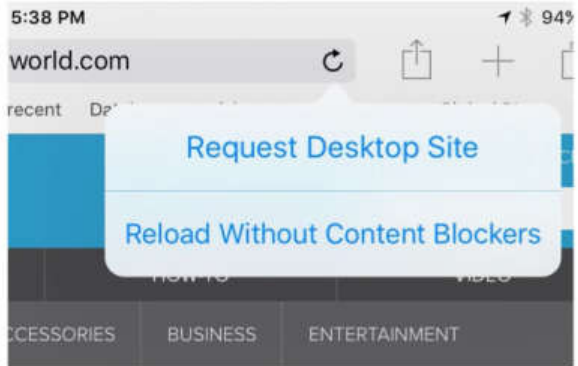
Whitelisting apps will be more complicated, because they will need to block everything and only allow a subset, such as child-appropriate sites (by whatever standards they pick) or sites that never feature adult content or obscenity (again by their definitions). Apple says that too many over-broad matches are a problem, and the WebKit team's blog post notes, "Using too many of them can cause the rule set to be rejected." Because rules can be updated remotely and dynamically, this seems like a Safari limitation: It will opt to ignore rules if they wind up exceeding some thresholds at compilation time.

Some blockers will surely offer sync via iCloud or other services to allow any user-customized settings, like whitelisted sites, to be kept the same across multiple iOS devices—and perhaps OS X.

The differentiation isn't going to come in performance, since Apple ultimately controls how that works in practice. Rather, it will be by features, usability, and cost.

## A POST-AD WORLD?

AT&T recently performed a dubious experiment at two airports in the Washington, D.C., area: it injected JavaScript code into pages being loaded by users of the free Wi-Fi network that overlaid advertising on websites. Discovered by a privacy



and security guru, AT&T quickly stated the experiment was over and intended to be limited. (I wrote in a *Private I* column why this was a terrible idea ([go.macworld.com/att](http://go.macworld.com/att)) on AT&T's part.)

This sort of behavior could be prevented with content blockers, because ad networks that employ such tactics quickly wind up on the darkest of blacklists, as privacy violators or script invaders, rather than just purveyors of commercial information.

A recent Reuters Institute for the Study of Journalism report found in a survey that 47 percent of everyday online news readers in the U.S. and 39 percent in the UK regularly used ad-blocking software. Between this injection, the large amount of data loaded that's not content related, slower load times, and privacy concerns, I expect content blockers in iOS will have the same level of popularity. ■

**HOLD DOWN** the reload button in iOS 9 with content-blocking filters enabled to get an unfiltered page.

# HELP KEEP THESE KIDS IN PLAY.

**175,000 KIDS WILL BE  
DIAGNOSED WITH  
CANCER THIS YEAR.**

Children are our greatest hope for the future.  
Let's be their greatest hope too.

Cancer strikes infants and children. For teens  
and young adults, survival can depend on  
treatment by a pediatric oncologist, designed  
specifically for them.

The St. Baldrick's Foundation and Stand Up To  
Cancer are funding groundbreaking collaborative  
research to bring the most effective therapies to kids  
fighting cancer. To learn how you can help keep  
these kids in play, go to [stbaldricks.org/inplay](http://stbaldricks.org/inplay) and  
[standup2cancer.org/pediatrics](http://standup2cancer.org/pediatrics).

**Julia Hernandez**  
Diagnosed at 16,  
in remission.

**Samuel L. Jackson**  
Stand Up To Cancer and  
St. Baldrick's Ambassador



**St. Baldrick's  
FOUNDATION**

Conquer Childhood Cancer



St. Baldrick's Foundation is a charitable 501(c)(3) organization funding childhood cancer research.  
Stand Up To Cancer is a program of the Entertainment Industry Foundation, a 501(c)(3) charitable organization.

Photo by Nigel Parry

March

# Apple vs. Google: Replacing Apple's stock iOS apps with Google apps

Google makes so many apps for iOS, we thought we could live the Android life on our iPhones. And you know what? A Google life ain't always easy on iOS.

BY JOEL MATHIS

March 1 - 7

6

Fri

**F**or about a year now, I've been joking that it's entirely possible—if you want—to have the Android experience on an iOS device. Why not? While Apple keeps its own app offerings pretty strictly tied to its own devices (Apple Music being a forthcoming exception to the rule), Google is more willing to take customers wherever it can get them. Don't have an Android phone? That's fine: Google has an app for many of the things you already want to do on your iPhone, like email, instant messages, news, streaming music, and, of course, maps.

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So I wondered: How well could I survive for one week using just Google apps on my iPhone?

Here were my ground rules: First, I would clear my phone of apps and shuffle the native, undeletable stock iOS apps off into a folder. Then, I'd download all the Google apps I thought I might use in the course of my daily business. Then, just for fun, I decided that if I needed an app that wasn't a Google product, I'd at least make sure it exists in the Google Play store for Android users. And if a Google app could replace a third-party app, I'd try to use the Google app instead.

The apps I downloaded: Google, Calendar, Chrome, Docs, Inbox, Maps, Google Play Books, Google Play Music, Google Play Newsstand, Google Photos, and (ahem) Google+.

What did I find out? Google works hard to provide alternatives. But it can't—in part because of Apple's rules—provide an entire ecosystem

across iOS. Overall, some of the apps were pretty good. Some of the apps were merely OK. And one was Google+. (Suffice it to say: It wasn't long before the Facebook and Twitter apps reappeared on my phone.)

## **FLIP A COIN**

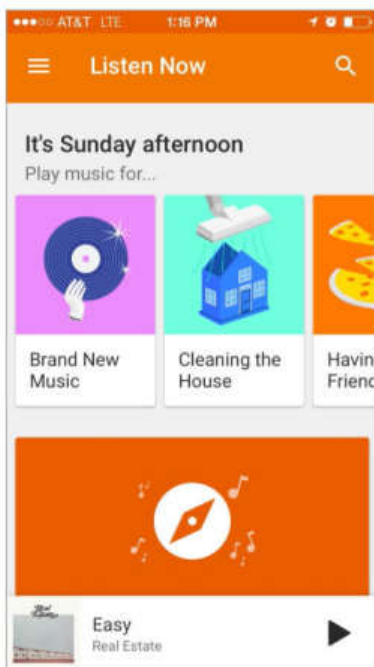
There are some areas where Apple's and Google's offerings run neck-and-neck on iOS. Apple Music made its debut just a couple of weeks before my experiment, and there's a lot to like about the new service. Before that update, though, the current iteration of Google Play Music ([go. macworld.com/playmusic](http://go.macworld.com/playmusic)) might've beat it handily since it already offered a Spotify-style streaming service. The problem? If you just use the mobile version of the app—and for a week, that's what I did—you can come away not knowing that streaming service even exists and thinking Google's music offering is more of a Pandora competitor. Why? Because there's no



in-app signup for the service.

Go to the service's website ([play.google.com/music](http://play.google.com/music)) and sign up for \$10 a month, and suddenly your mobile music choices are much broader. It has Sonos support (which Apple Music doesn't have yet), comes with access to the YouTube Music Key beta, and lets you upload up to 50,000 tracks à la iTunes Match for no extra fee. I still like Apple Music more, for two main reasons: First, Beats 1 radio ([go.macworld.com/b1radio](http://go.macworld.com/b1radio)) is awesome, and Apple appears ready to expand on that success. Second, for \$15 a month, I can share my Apple Music account with my entire family. It's a nice option that saves me money. As for Chrome: While it's my default browser on my Mac, it's iftier on iOS, thanks in part to Apple's mobile browser restrictions. The advantages: Chrome had better voice-search options than Safari, and it has a Notification Center widget. But I like Safari's ability to save bookmarks as app icons. A toss-up, but I lean toward Safari here.

Finally, Google Docs is in many ways inferior to Pages, which offers more sharing options (including AirDrop compatibility) and more templates for starting precisely the kind of document you want to create. If you're wanting to collaborate with other people on a document—a



#### GOOGLE PLAY MUSIC

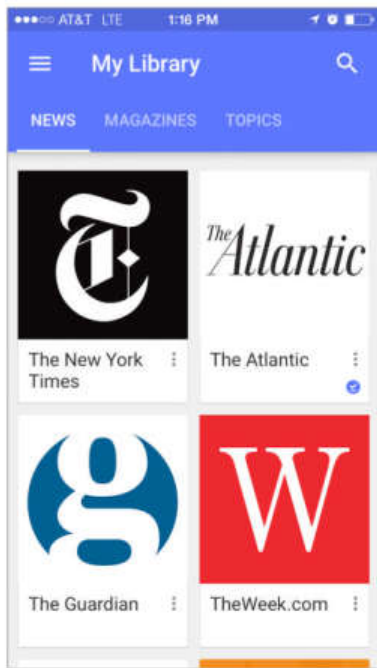
is a solid streaming service, but you'll have to head over to its website and sign up to take advantage of all of its in-app offerings.

feature both services offer—well, more of your friends and colleagues are probably using the Google option. Because so much of what I do is straight-ahead text composition—no fancy newsletters for me—I'll stick with Google Docs, but if you're an advanced word processing app user, Pages might be the way to go.

## WHERE GOOGLE BEATS APPLE

There are places, though, where you can see Apple's future in Google's work.

The most obvious spot is Google



**GOOGLE PLAY NEWSSTAND** is awesome. We'll see if Apple's forthcoming News app stacks up when it launches with iOS 9.

Play Newsstand ([go.macworld.com/gpstand](http://go.macworld.com/gpstand)). It looks less like Apple's about-to-be-defunct Newsstand—which was a container for separate apps for each periodical—and more like Apple's forthcoming News app ([play.google.com/newsapp](http://play.google.com/newsapp)) that will launch with iOS 9. Publishers feed their content directly to Google, which standardizes the layout and fonts across all the publications. Now that Google Reader is long dead, this

## ONE THING THAT DID SURPRISE ME? HOW MUCH I LIKED USING GOOGLE PHOTOS.

is a pretty handy newsreader—and it's staying on my phone, at least until iOS 9 debuts and I can see how Apple's new offering performs.

I'm also a big fan of Google Calendar, mostly because, well, it looks pretty. My default is to use the app's Agenda view, which just shows me a list of my upcoming appointments—a feature that isn't available in my iPhone's default Calendar app. Google Calendar also automatically overlays some types of items with appropriate artwork, making organization a bit more fun to peruse.

It won't surprise you, perhaps, to discover that Google Maps is still more useful than Apple's native Maps offering, especially for city-dwelling public transit users. In Google Maps, I can click on my location and see what buses are coming by that corner and when. When I tried to discover similar information in Apple Maps, the app helpfully showed me other apps that could help—including Google Maps. I don't need to be told twice. Apple Maps will be getting public transit support for 10 major



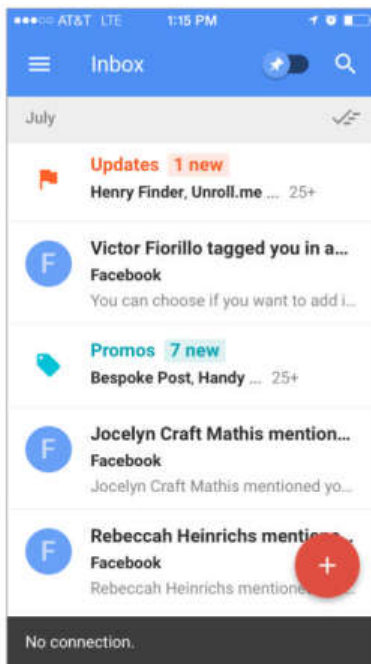
U.S. cities when iOS 9 launches—and my hometown of Philadelphia made the cut—but in the meantime, I'll stick to Google Maps.

One thing that did surprise me? How much I liked using Google Photos. I've never been much inclined to use iCloud, in part because of the expense: Flickr's terabyte of free storage is too good for me to pass up. Google Photos will store unlimited photos at what Google calls "high resolution," which tops out at 16 megapixels—plenty for iPhone photos, with the exception of big panoramas. Or you can opt to store your photos at their original resolution, which Google recommends for people who shoot with a DSLR, for example. That option will hit your 15GB of free Google Drive storage first, and once that's gone you'll pay \$2 per month for 100GB or \$10 per month for 1TB.

I'm fine with the free unlimited tier—and perhaps as a result, Google also seems to upload photos much more quickly. I'm also tickled by Google's Assistant feature, which automatically creates pictorial storybooks and short videos out of the images you capture. You can edit them, discard them, or share as-is.

## WHERE APPLE WINS

Where Google fell short the most, interestingly enough, was in the



## GOOGLE'S INBOXES

**ORGANIZES** your email, but it's not completely intuitive.

realm of communications. Apple's default Mail app makes it easy to sort good communications from bad—just award a VIP star to your correspondents whose missives you can't miss. Google's Inbox app tries to separate good from bad, but does so by dividing your mail into three inboxes: Inbox (where your important mail is supposed to live), Updates, and Promos. That leaves you shifting between boxes more often, which is kind of a pain. If it or the regular old Gmail app in iOS behaved more like its Android counterpart—that is, if it

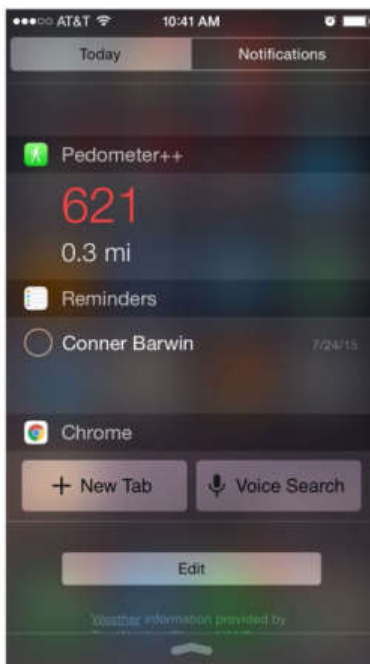
let you tie in Exchange corporate accounts ([go.macworld.com/exchange](http://go.macworld.com/exchange))—I'd be tempted to use it. One advantage it has over the native app? It opens links directly into Chrome, if you have it, instead of insisting on Safari.

Apple's Mail, meanwhile, is also more likely to work with your work email: It's compatible with Microsoft's Exchange system used by many large companies. During my Google Week, I made my company's Outlook account forward emails to my Gmail account, but it was far from a perfect solution when you know an integrated email app is available. (Better yet? Microsoft's Outlook app does incorporate Gmail, and does a terrific job of separating priority email from less-important stuff.)

Email is not the only way to communicate, of course. In truth, I've long preferred Google Hangouts' video-chat feature to FaceTime, if only because so many of my relatives and friends use Android phones, making FaceTime untenable. My mistake? Thinking I could use Hangouts to replace SMS messaging on my iPhone. I turned off SMS and missed a few texts from my wife. (Sorry, honey.)

## WHO'S BETTER, WHO'S BEST

Where Google fell short the most—on iOS anyway—was with its plain old



**GOOGLE CHROME** and Google News are the only Google apps that have a Notification Center widget.

Google app. It's clearly meant to replace, or at least be an alternative, to Siri. You can leave reminders to yourself on this app, and you can do voice-enabled searches on the app. It wants to be an assistant, letting you know when your next flight is, or how the weather is today, or even your favorite team's score.

The problem: There's no widget for Apple's Notification Center, which limits the Google app. You have to click through to do a search or to see your reminder. Which means if you're trying to use Google instead of Siri or

Reminders or for searching, you're moving a bit slower.

Here's the thing: Google would prefer you do your business on all of its apps—the company builds its business on all the information you generate when you interact with it. Apple, too, has reasons for wanting to create a seamless ecosystem so you're never tempted to leave iOS-land. A smart user doesn't have to let either company get the upper

hand, though—and based on my week with this experiment, there's no reason to.

There are some things Apple does better than Google—certainly, at least, on iOS. But there are some things that Google does better, even on Apple's own platform. Me? I don't mind having a hybrid Apple-Google ecosystem to reach my max productivity, with just a touch of Microsoft thrown in. ■



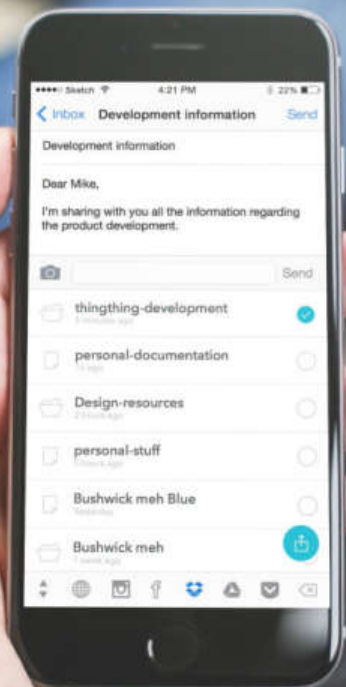
*"I want  
to be  
a bench.  
Recycle me!"*



[IWantToBeRecycled.org](http://IWantToBeRecycled.org)



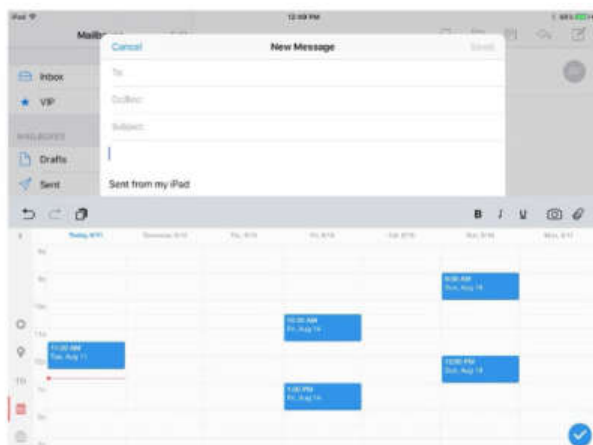
KEEP AMERICA  
BEAUTIFUL



# 16 delightful iOS keyboards that'll help you get through the day

There's a brave new world beyond the English alphabet: Here are 16 third-party iOS keyboards to communicate using Disney gifs, Instagram pics, or Lil' Wayne rap lyrics.

BY OSCAR RAYMUNDO

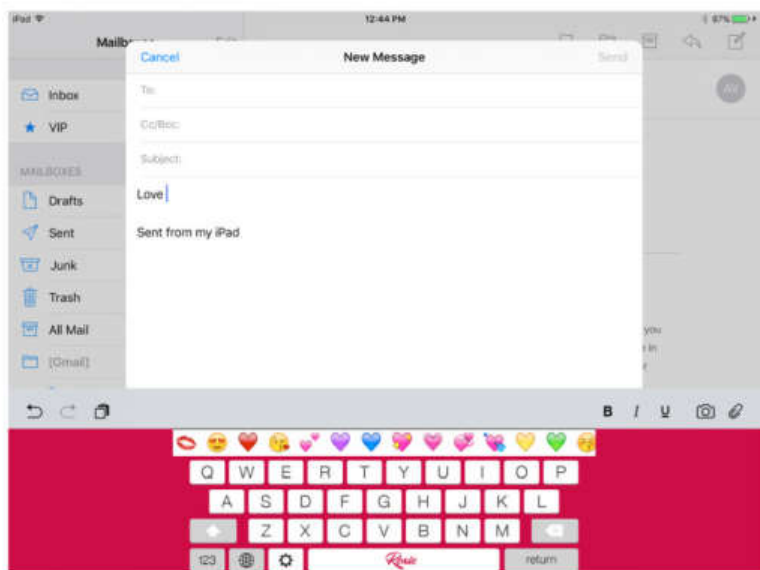


## MEET BY SUNRISE

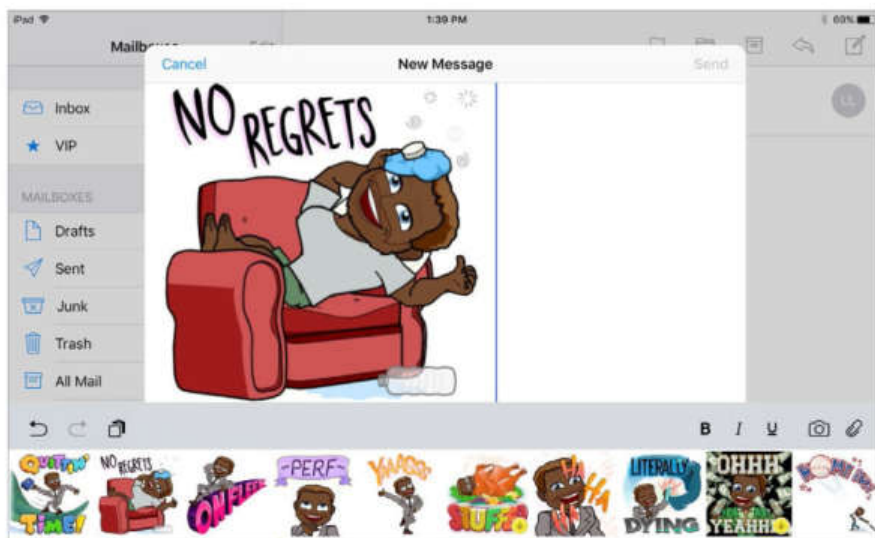
If you use the free Sunrise calendar app on iOS ([go.macworld.com/sunrise](http://go.macworld.com/sunrise)), then you already have the Meet keyboard on your phone. Add the keyboard in your Settings to quickly access your calendar. Meet lets you choose available meeting times and automatically creates a link where the respondents can chime in as to their availability. Once a date and time is confirmed by both parties, the event gets put in your calendar.

## ROXIE VISUAL KEYBOARD

Want an easier way to find and use emojis in your everyday messages? Try the Roxie Visual Keyboard ([go.macworld.com/roxie](http://go.macworld.com/roxie)). This free third-party keyboard suggests emojis that best suit the word or phrase you've typed. For example, typing Love surfaces all the heart and kiss emojis.







## BITMOJI KEYBOARD

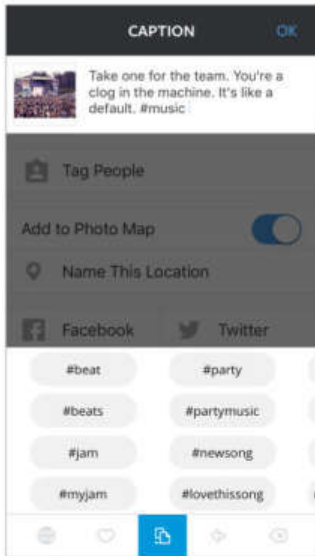
The popular Bitmoji creations ([go.macworld.com/bitmoji](http://go.macworld.com/bitmoji)) are now right at your fingertips with the Bitmoji iOS keyboard. Download the free app and create your funny-looking avatar to convey some personality every time you want to type LOL.



## PADKEYS KEYBOARD

For all you iPad power users, PadKeys Keyboard ([go.macworld.com/padkeys](http://go.macworld.com/padkeys); \$2) utilizes the iPad's larger screen to include numbers and punctuation so you don't need to switch screens when typing. Essentially, PadKeys mimics a physical keyboard, and it has more robust predictive text suggestions.



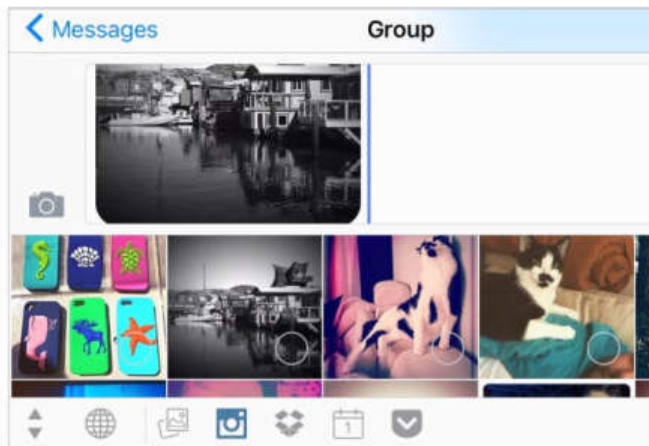


## TAGSDOCK

Avid Instagram users will tell you that the secret to getting more likes on their photos is savvy use of hashtags. The TagsDock ([tagsdock.com](http://tagsdock.com); \$1) keyboard helps you pick out relevant hashtags for your photos without even having to type # ever again. This keyboard also works on Vine, Facebook, and any other hashtag-tic social media apps.

## THINGTHING KEYBOARD

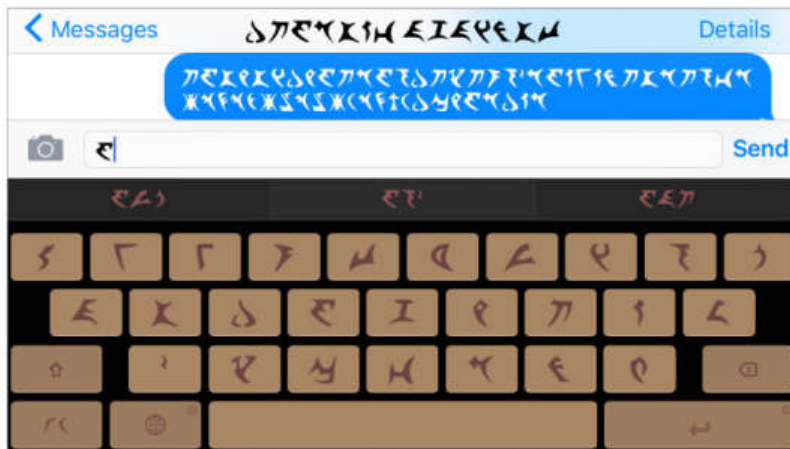
Thingthing ([thingthing.co](http://thingthing.co)) is a forthcoming iOS keyboard that will turn your keyboard into a one-stop attachment app. You can connect your Photos, Facebook, Instagram, and Flickr accounts to share photos with your friends without leaving iMessage. Thingthing can also help you be more productive. Simply connect your Google Drive, Dropbox, OneDrive, and Pocket accounts so that you can quickly attach documents in email messages. You can also connect your Calendar so that you quickly peek at your schedule whenever someone asks to make plans.





## AMIGO SPANISH KEYBOARD

There are several full translation keyboards for iOS, but they can cost you as much as \$10. If you mostly type messages in English and Spanish, then try this free alternative. The Amigo Spanish Keyboard ([ludable.com/amigo](http://ludable.com/amigo)) comes stocked with a full English-Spanish dictionary and grammar rules. Amigo even offers to pronounce the Spanish words so you can become fluent in real life too.



## KLINGON SWIPEKEYS

Trekkies out there will love to learn that there is a Klingon iOS keyboard. That's right: Klingon SwiPEKeys ([swipekeys.com](http://swipekeys.com); \$1) downloads the original font on your phone and lets you text with your friends in this sci-fi cult language.

## HANGKEYS

This free iOS keyboard gives new definition to the phrase “words with friends.” HangKeys ([go.macworld.com/hangkeys](http://go.macworld.com/hangkeys)) creates the stick figure hanging tree and lets your friends guess letter after letter until they figure out the word—or give up trying.

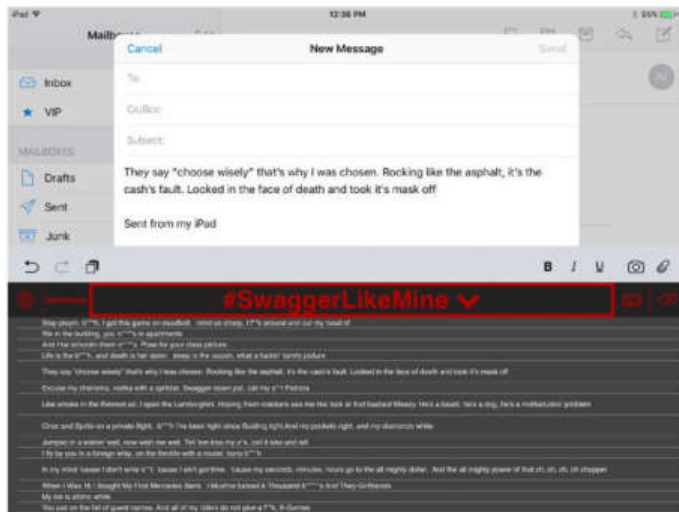
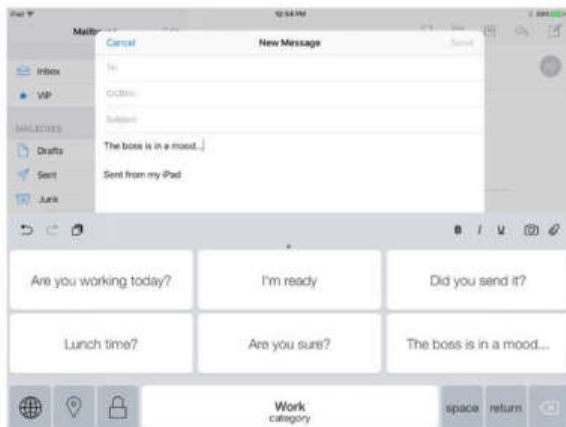


## THUMBLY KEYBOARD

Having a text conversation while holding a cup of coffee or carrying groceries can be quite the predicament. Thankfully the Thumbly Keyboard ([thumblykeyboard.com](http://thumblykeyboard.com); \$2) makes it easier than ever to type with one hand. This third-party keyboard has been redesigned so that all the keys are within reach of either your left or right thumb, so you'll never need both hands again!

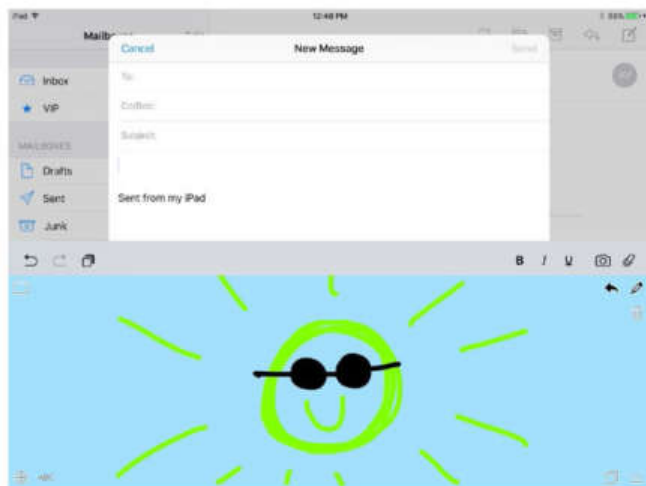
## PHRASEBOARD KEYBOARD

Tired of typing the same phrases over and over again? The Phraseboard Keyboard ([go.macworld.com/phrase-board](http://go.macworld.com/phrase-board)) is here so you won't ever repeat yourself over text messages and email. This free iOS keyboard stores information such as names and addresses so you can send them over with a quick tap. It also comes stocked with common phrases for different types of messages: work, family, or friends. You can edit these phrases or add new ones depending on how you communicate.



## LIL WEEZY KEYBOARD

Fans of Lil' Wayne can now communicate by sending rap lyrics back and forth. The free Lil Weezy Keyboard ([go.macworld.com/lilweezy](http://go.macworld.com/lilweezy)) is a goldmine of silly—and explicit!—expressions made popular by the famous rapper. Luckily there is a censor button, just in case you're not a fan of profanity.

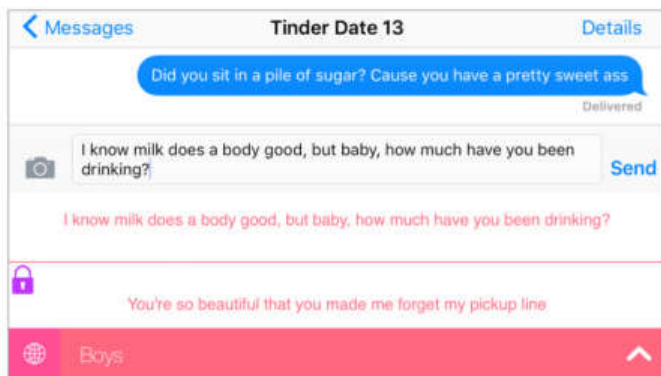


## SCRIBBLEBOARD

Do you miss playing Pictionary or DrawSomething? The ScribbleBoard ([scribbleboard.me](http://scribbleboard.me); \$1) app turns your keyboard into a blank canvas so that you can share your doodles all day long.

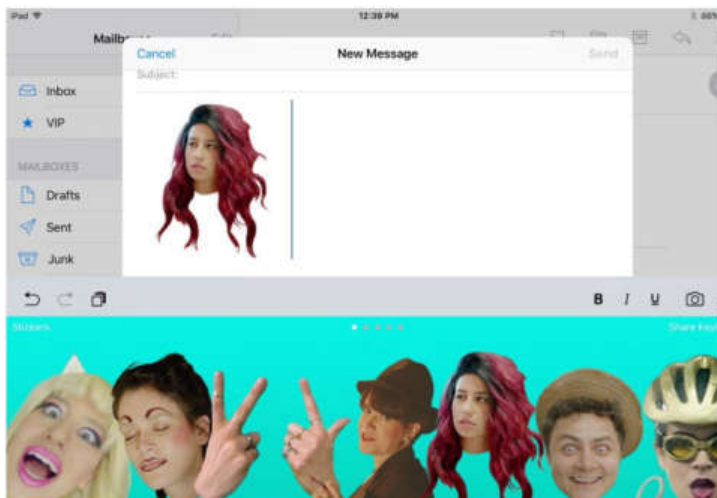
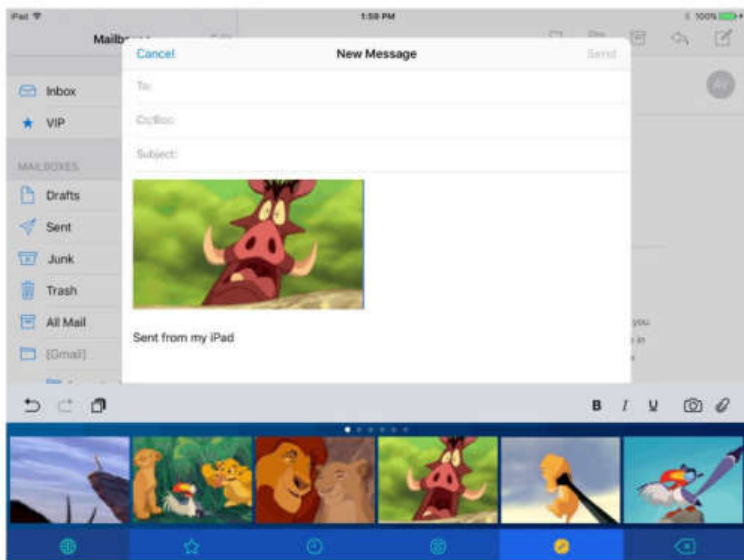
## FLIRT KEYBOARD

So you've matched with someone on Tinder, but you're not sure how to start a conversation? This Flirt Keyboard ([go.macworld.com/flirt](http://go.macworld.com/flirt); \$1) comes with a handy-dandy list of phrases for men and women to flirt via text. Be careful, though, most of the suggestions are definitely cheesy. This iOS keyboard is best for playing a silly prank on your friends.



## DISNEY GIF KEYBOARD

There are a ton of gif keyboards available in the App Store, but if you have a soft spot for the wonderful world of Walt Disney, then this free Disney Gif keyboard ([go. macworld.com/disney](http://go.macworld.com/disney)) is for you. The gifs are organized by movie and also by category from “sassy” to “villanous.” This iOS keyboard is not just limited to Disney’s kid flicks, either. The company has included gifs from its other properties, including Pixar, Star Wars, and its ABC TV channel.



## BROAD CITY KEYBOARD

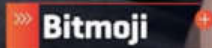
This free iOS keyboard ([go.macworld.com/broad](http://go.macworld.com/broad)) was inspired by the funny ladies behind Comedy Central's hit show *Broad City*. So expect a batch of crazy emojis, gifs, and stickers for all those “yas kween” moments in your life.

# VIDEO: 5 weird iOS keyboards for expressing your wacky self



## VIDEO

To view this video,  
go to go.  
[macworld.com/  
ioskeyboardvid](http://macworld.com/ioskeyboardvid)



Face Shape



Try these third-party keyboards to communicate with Klingon symbols, customized emojis, or even Lil' Wayne rap lyrics.





## The best camera apps for iOS

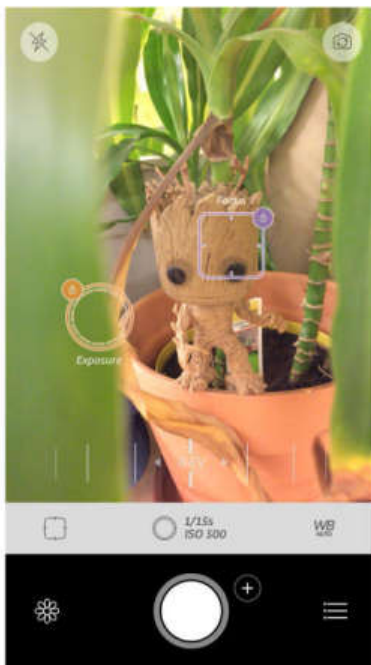
The App Store is teeming with apps for shutterbugs, and filtering through all of them can be harder than capturing a clear photo of Bigfoot. So we put the best, most buzzed-about camera apps to the test.

BY MICHAEL SIMON

**N**ot only is the iPhone one of the most popular point-and-shoots on the market, if you had to pick one feature that sets it apart from its smartphone competitors, it would have to be the camera. The secret is in Apple's proprietary image signal processor, which handles things like autofocus, face detection, and noise reduction to reduce the strain on the main processor and optimize the camera for iOS.

But while the iPhone takes exceptional pictures right out of the box, Apple's Camera app only scratches the surface of what its 8-megapixel sensor can actually do. Through a set of powerful APIs, Apple has given developers far more control over the camera than it offers in its own app. Access to professional-caliber controls like shutter speed, ISO, and white balance have brought out the very best in Apple's innovative iSight camera, elevating it beyond the expectations of a humble smartphone.

So naturally, the App Store is teeming with apps for shutterbugs, and filtering through all of them can be harder than capturing a clear photo of Bigfoot. That's why we put some of the best and most buzzed about camera apps to the test. I snapped tons of pictures and tweaked more settings than I ever have before, and the apps that performed best were the ones that let me shoot most consistently. They offer a robust set of features that let



**WHETHER YOU'RE** photographing people, trees, or tree people, Camera+ will help you capture just the perfect shot.

me adjust light and focus without sacrificing the Camera app's greatest strength: The ability to quickly capture a moment.

Ultimately, this list was made based on three factors: Interface,

ease of use, and, of course, features. And while we can all surely agree that every app on this list will help you take stunning photos, don't take it personally if your favorite didn't make the cut. (Truth be told, the app I used most before writing this barely gets a mention.) Camera apps are some of the most subjective around, so it's entirely possible that I've overlooked a great one.

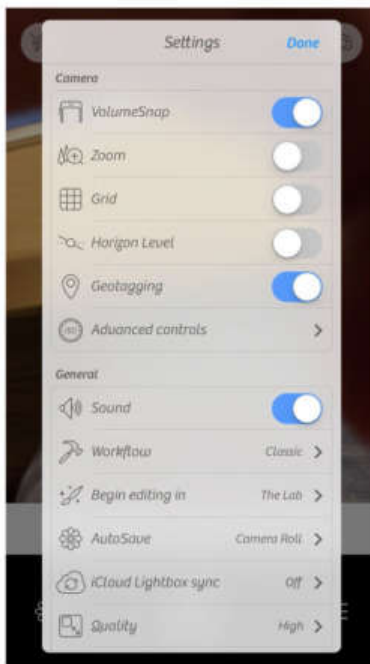


### BEST: CAMERA+

Debuting alongside the iPhone 4 some five years ago, Camera+

([campl.us](http://campl.us); \$3) quickly became the go-to Camera replacement and set the standard for shooters, bringing things like image stabilization and exposure control long before Apple did. But it hasn't rested on its laurels. Currently in its sixth iteration, Camera+ is continuously the best in its class, with a tremendous set of features, fantastic editing, and a blissfully customizable interface that lets you choose exactly how much control you want over the camera.

Camera+ has followed Apple's lead when it comes to the interface, making it feel familiar while cutting down on the amount of fumbling you'll need to do to snap a quick pic. It looks extremely basic—you'll see the familiar circular shutter button, a toggle for the



### THE SETTINGS IN

Camera+ alone are worth a thousand words.

flash, and the option to flip cameras—but Camera+ showcases its strength in extremely subtle ways. You'll see the ISO, f-stop, and white balance displayed prominently, but the adjustment bars are neatly hidden behind slide-up menus, keeping the shooting area nice and clean while still letting you quickly bump up the ISO or adjust for a dark room.

The shutter button is flanked by shortcuts to the in-app editing room and its bountiful settings. Inside, you'll find tons of toggles that affect

your shooting, view settings, and workflow, from how your photos are taken to where they're saved. It'll take some time to dig through all of them, but once you get it to your liking you'll have a veritable dream shooting machine at your fingertips.

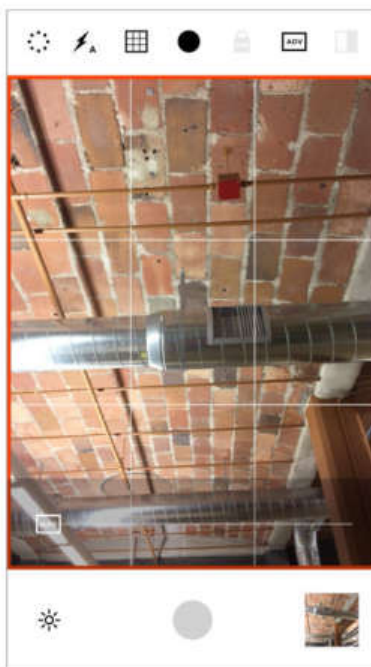
Camera+ also offers a top-notch editing environment, with dozens of filters, crops, tints, and frames to perfect your masterpiece. It has a customizable Notification Center widget for quick photos, selfies, and pro tips, and an Apple Watch companion that works as a remote, like Apple's Camera does (though live previews will have to wait until watchOS 2).

But what gives Camera+ an edge over its competitors is its tremendous versatility and intuitiveness. Whether you're into funky filters or exact exposure, you'll be hard-pressed to find a camera that offers a better experience and produces such consistent results.



### **RUNNER-UP: VSCO CAM**

Back before it made one of the best cameras in the business, the Visual Supply Co started out offering presets for Aperture and Lightroom that emulated the look of classic Kodak, Fuji, and Ilford prints in an effort to bridge the worlds of digital and film cam-



**VSCO CAM** might look minimal, but it maximizes the power and potential of the camera.

eras. VSCO Cam ([vSCO.co/vscocam](https://vSCO.co/vscocam); free) continues in that vein, offering an elegant, clean camera that puts a heavy focus on classic creativity and inspiration. It's this respect for photography that makes VSCO a standout, from the carefully crafted interface that gives photographers full control without cluttering the viewing area to its excellent array of filters that tastefully tweak your pictures with professional presets.

As a camera, VSCO's extraordinarily minimal interface has a somewhat longer learning curve than Camera+. It

certainly stacks up when it comes to control—you'll be able to manually adjust white balance, exposure compensation, focus, shutter speed, and ISO—but figuring out how to properly use it requires a good deal of exploration. It's kind of like picking up a high-end DSLR for the first time: You can make a few minor adjustments and still take an excellent photo, but you'll be much better served by mastering its controls.

But once you understand the interface, VSCO offers an unparalleled experience for photographers. It's not just about toggles and sliders—from the precision adjustment controls to the “big-button mode” that lets you tap anywhere on the screen to snap a pic, everything is designed to help you turn what you see into a work of art worthy of Apple's “Shot on iPhone 6” campaign.

VSCO doesn't offer the usual editing and cropping tools you'll find in do-it-all camera apps. Rather, you can select from a dozen or so presets that do all of the fine-tuning behind the scenes. To call them filters would be underestimating their abilities. Where most apps apply a harsh overlay meant to conjure a specific style or mood, VSCO's effects are much subtler, bringing carefully refined adjustments that enhance the elements in your photos rather than apply broad visible



**IF YOU NEED** a little inspiration, VSCO's impressive community of photographers is happy to provide it.

**EVERYTHING IS DESIGNED TO HELP YOU TURN WHAT YOU SEE INTO A WORK OF ART WORTHY OF APPLE'S “SHOT ON IPHONE 6” CAMPAIGN.**

changes.

Along with the standard library for storing images, VSCO also lets users publish their creations to a pool that can be shared and swapped with the larger community. And a neat journal function lets you turn your photos into Storehouse-style stories.



## BEST FOR FILTER JUNKIES: TADAA

Instagram may be responsible for the proliferation of filters in digital photography, but if it wasn't for the iPhone they wouldn't be nearly as popular. Now, you'll find filters tucked into pretty much every major camera app.

But even in a bountiful sea of unique colors and textures, TADAA ([tadaa.net](http://tadaa.net); free) manages to stand out. An excellent interface helps you quickly swipe to apply a live filter to your view, but head to the editing room for an array of tools and sliders to tweak the size, clarity, sharpness, and perspective of your photo. But TADAA truly shines when it comes to customization. A couple dozen filters are provided for free—many more are available as reasonably priced bundles—but there's more packed into each one than a simple on/off switch. Each filter lets you adjust the intensity and hue, opening them up to an array of creative applications. And with smart masks that can isolate a portion of your picture, your filtered photos will look like you spent hours laboring over them in Photoshop, not seconds moving sliders on your iPhone.



## BEST FOR MINIMALISTS: MANUAL

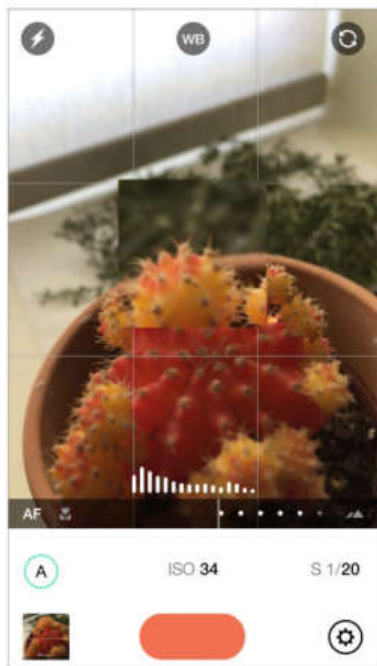
Making a good minimal



**WITH TADAA'S** catalogue of filters, virtually anything you shoot can be worthy of an Instagram post.

interface is harder than it looks—especially when you're dealing with controls and buttons that the average person doesn't understand. But Manual ([shootmanual.co](http://shootmanual.co); \$2) manages to pull it off expertly, striking a perfect balance between too much and too little while still giving experts the tools they need to take professional photos.

Despite its simple interface, Manual isn't built for speed. While there is an automatic mode, the app takes full advantage of the camera's raw power and encourages tinkering



**DON'T LET** its uncluttered interface fool you—Manual gives you tremendous control over your snapshots.

of its various settings, from the white balance and color temperature to the exposure and ISO sensitivity. There aren't any filters or unique shooting modes—though it does provide a set of common white-balance presets—but Manual packs plenty of power into its viewfinder. Adjustments are mainly made through dials and sliders, and a clever magnifying box lets you expertly shift the focus of your subject.

You'll also find a useful histogram that helps visualize any sudden exposure shifts, while a dark theme keeps light leaks at a minimum when shooting in low-light settings. But what's most impressive about Manual is its extraordinary attention to detail, and even if it's not your main camera, it's definitely worth keeping in your kit.



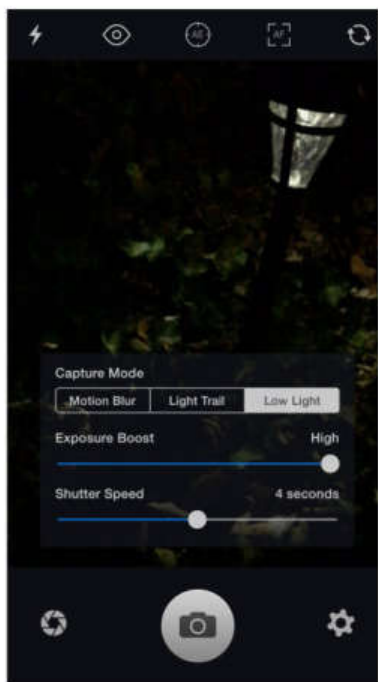
### **BEST FOR NIGHT OWLS: SLOW SHUTTER CAM**

Shooting in low light can be difficult for even the highest end cameras, so it's no surprise that it's a common complaint with smart-phones. If you're often shooting while enshrouded in darkness, Slow Shutter Cam ([cogitap.com](http://cogitap.com); \$1) will give you consistently strong results.

To capture photos without a proper source of light, you'll need to slow down the shutter speed to expose the sensor to more light. Pretty much any manual camera app will let you adjust this setting, but Slow Shutter breaks it down in such a way that it's easy to understand and control. When shooting in the dark, real-time sliders for exposure boost and shutter speed will let you adjust the sensitivity to capture the desired result. It's meant to simplify the process for amateurs, but pros will appreciate its no-fuss approach.

And it's not just great in low-light situations. Shots that look best with





**LOW-LIGHT SHOTS** are tricky with the iPhone, but Slow Shutter Cam will do everything it can to help.

long exposure—such as running rivers or zipping cars—will benefit from the motion blur and light trail modes that offer the same easy adjustment sliders, ensuring you don't mess up a great shot fumbling with confusing controls.



### **BEST FOR EDITING: ROOKIE CAM**

If you want to do more than touch up your photos or magically remove red-eye,

you'll find everything you're looking for inside Rookie Cam ([go.macworld.com/rookie](http://go.macworld.com/rookie); free).

As a camera, Rookie is fairly rudimentary, but snapping photos is only a small part of what it does. Where the other cameras in this list are mostly built to help you take the perfect shot, Rookie goes to work after the moment has been captured. Along with a standard set of editing tools, the app offers a heap of design tools to dress up your pics, from filters to badges, fonts and frames, all with the explicit purpose of transforming your snapshots into slick works of art. The app comes bundled with a nice selection of features, but a few bucks will unlock a trove of customizable goodies that will make the duller of photos suitable for sharing.

Some of Rookie's options are admittedly amateurish, but that's part of its appeal: Simply scrolling through the scores of stickers and shapes can put your photos in a new light and open avenues of creativity you wouldn't otherwise discover.

### **OTHERS OF NOTE**

Paring this list down to six camera apps left many great ones on the cutting room floor. That includes my personal favorite: ProCam 2 ([procamapp.com](http://procamapp.com); \$5). ProCam used to be my go-to app for taking photos: Its



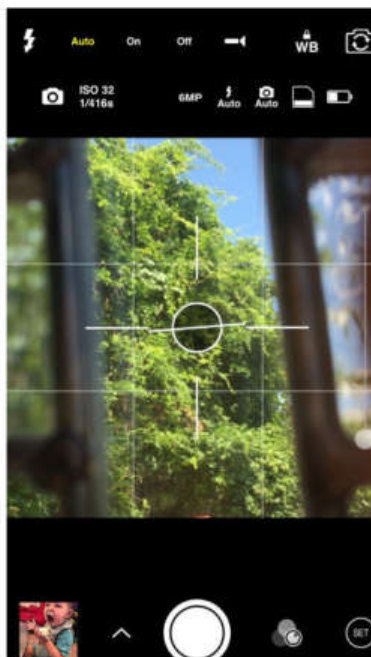
**WITH ROOKIE CAM'S LIBRARY** of filters, you can choose to tweak or totally transform your photos.

shooting modes let me snap quickly, while its manual settings offer tremendous control. It takes some time to learn—even beyond what it takes to decipher VSCO's minimal interface—but there isn't much it can't do. Its interface isn't quite as intuitive as the others here, but you can learn a lot about digital photography by exploring its settings. If I had to create a category for it, it would be "Best for novice photogra-

phers who are ready to start using a more advanced camera."

Another favorite is Shoot ([procamapp.com/shoot-by-procam](http://procamapp.com/shoot-by-procam); \$2), whose refined interface provides plenty of control without bogging you down with too many settings. It isn't quite as minimal as Manual, but it does a fine job of striking a balance between simple and complex, with sliders, grids, and meters all working in unison to help you quickly nab a perfect shot.

The second runner-up for best overall camera (finishing just a hair



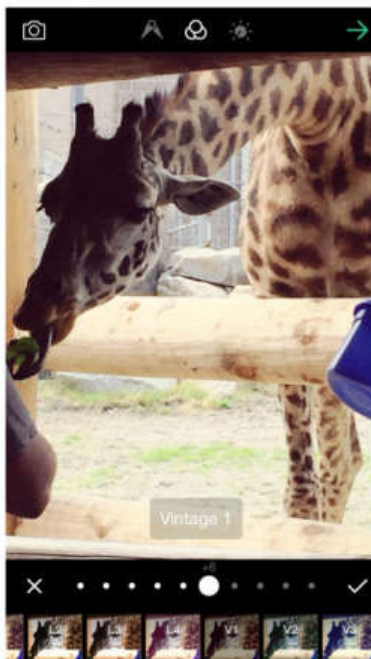
#### PROCAM2 WILL GIVE

you a pretty good idea of what it's like to use a DSLR—and it'll save you hundreds of dollars.


behind VSCO) was ProCamera 8 ([procamera-app.com](http://procamera-app.com); \$5), a full-featured manual camera with a nice interface and a slew of manual controls. A cool feature called Exposure Swipe Control lets you regulate brightness just by moving your finger around the screen, and a series of advanced shooting modes cuts down on the amount of adjustments you'll need to make. And if you're a fiddler, ProCamera gives you settings aplenty.

Instagram junkies will appreciate EyeEm's ([eyeem.com/market](http://eyeem.com/market); free) filter-focused camera, which features 24 adjustable screens, textures, and patterns to give your photos a unique look. And its camera isn't too shabby either, with a minimal interface that gives you about as much control over your picture taking as Apple does.

Colors ([colorscamera.com](http://colorscamera.com); \$1) offers more than 1000 filters that can easily be applied to your photos. You won't find too many unique ones—true to its name, most of them are simple shades of color—but for a buck, it's worth keeping around just for the sheer volume of options it provides. ■



**EVEN IF YOU DIDN'T** take the perfect shot, EyeEm's gallery of filters will help turn it into one.



## Three alternatives to Beats Solo2 headphones

Beats headphones are popular, but if you're concerned about their sound quality, consider an alternative.

BY KIRK McELHEARN

**B**eats headphones have achieved a level of notoriety based on their style, but the sound they offer isn't for everyone. Often touted as headphones for urban music—rap and hip-hop—the Beats sound doesn't transfer well to all genres.

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It just so happens Apple is giving new Mac buyers a free pair of Beats Solo2 headphones as part of its back to school campaign. But it's worth investing in headphones that offer better sound quality. (Maybe you can sell the Solo2 headphones and use that money for a different pair.)

I found the Beats Solo2 ([go. macworld.com/solo2](http://go.macworld.com/solo2)) to be comfortable, and to offer good noise isolation, but, as for the sound...while some music sounds excellent—Bob Dylan with an acoustic guitar, for example—most music doesn't. The bass booms, overwhelming much of the music, in what sounds like an artificially equalized sound. It's as though I pushed the loudness button on my amp, then turned down the treble. Sometimes these headphones make it sound like you're in the bathroom of a club, listening to music through the walls. The bass can be so overwhelming that it drowns out much of the rest of the music.

I tried three other wired, on-ear headphones, at a similar price as the Beats Solo2. I tested these headphones with a wide variety of music,



from Bob Dylan and the Grateful Dead, to Miles Davis (both acoustic and electric) and Brad Mehldau's piano trio, as well as with classical music, from solo instruments to string

Beats Solo2

quartets and orchestral works.

### SENNHEISER URBANITE

This \$200 Sennheiser headphone ([go.macworld.com/sennheiser](http://go.macworld.com/sennheiser)) emulates the big, bulky, Beats aesthetic. As Sennheiser says, it has “massive bass,” but that bass compromises clarity. Aside from the booming bass, there’s poor definition across the spectrum. When I set my iPhone’s EQ to Bass Reducer, much of the music I listened to sounded tinny and distorted. This isn’t a fault of the EQ; using the same setting with other headphones didn’t result in poor sound.

It’s the heaviest of the three headphones I tried, at 205 grams, and it feels bulky on the head. There’s no case, only a cloth carrying bag, but it has a removable flat cable, which is less likely to tangle, and the cable has an inline remote with control buttons and a microphone.

But the sound of this headphone was poor enough that I wouldn’t recommend it, though if you listen to a lot of bass-heavy music, you might want to try it out.

### V-MODA XS

We reviewed this \$200 V-Moda headphone ([go.macworld.com/vmoda](http://go.macworld.com/vmoda)) last year, and our reviewer loved it. I found the V-Moda XS to be



Sennheiser  
Urbanite

light and comfortable, within limits. Like all on-ear headphones, warm weather is problematic, as your ears feel uncomfortable pretty quickly. But this tight fit also provides noise isolation. While the earcups are fairly small, they’re big enough, and they cover my admittedly large ears quite well. So if you’re listening to music while walking around the city, a lot of the background sounds get muffled.

The V-Moda XS is fairly light at 172 grams and folds up quite small, fitting into an easily portable protective case. It has a single, removable cable, reinforced with Kevlar, but I found this cable to be stiff and hard to manage.

Soundwise, the headphone puts both the Beats Solo 2 and the Sennheiser Urbanite to shame. It has

a clear, neutral sound, though it's a bit undefined in the high end. It can pack a punch if you want bass, but the bass doesn't overwhelm the midrange and treble.

The only thing I didn't like was the style. The box says "Built like a tank," and it certainly looks like one too. It's rugged, and will last a long time, so it's a good headphone to have if you don't plan to treat it well.

The main problem I found is the inline microphone and remote button. While the microphone is well placed—higher up on the cable than in some other models, making it a great headphone to use to make calls with an iPhone—there's only one button. Most headphones have three buttons, one to pause and play, and two others to change the volume; this remote doesn't have volume buttons, so I needed to go to my iPhone to change volume.

### **BEYERDYNAMIC T 51-I**

This \$299 headphone from Beyerdynamic ([go.macworld.com/beyer](http://go.macworld.com/beyer)) costs 50 percent more than the other headphones I tested, but if you want good sound, the difference is certainly worth it. It has a full, powerful sound, with clarity across the spectrum. Midranges are full and vibrant, and trebles are sharp and incisive. There can be a tad too much bass for certain types of music, but the



iPhone's Bass Reducer EQ tempers this perfectly.

It's small, light, and comfortable, and, at 157 grams, the lightest of the three models I tested. It feels a bit tight on my head, but over time it would probably be more comfortable. It has good noise isolation, even though the earcups are quite small. Unlike the V-Moda's oval earcups, the Beyerdynamic's are round, and this seems to give a bit more space to the sound.



This headphone has a dual cable; in other words, it connects to both earpieces. I'd rather have a single cable, because it's less tangle-prone, but a dual cable means that if you jerk the cable, the stress is equally distributed. The cable is not removable, however, which makes me wonder about how long it will hold up over time. The inline microphone and remote is placed at nearly the perfect position, and it does have volume buttons.

Aesthetically, I find this headphone to be the nicest of those I tested, but I understand that my taste is not universal. It doesn't have the aggressive styling or bright, shiny colors of Beats headphones, and the solid aluminum armature looks sleek and modern. The build quality makes me think that this is a headphone that's going to last, even with tough usage. (Compare that to Beats' plastic.) It comes with a case, which is a bit large, but very sturdy.

## LISTEN UP

Headphones are one area where you don't always get what you pay for. At \$200, the Beats Solo2 is certainly not a versatile headphone. If you like the Beats style, and the bass-laden sound, then it might be for you, but the build quality and poor audio make it an expensive choice. For the same price, you can get the excellent V-Moda headphones, if it matches your style. For another \$100, the Beyerdynamic T 51-i is a best-in-class headphone, with subtle styling, and a more solid build. ■



Beyerdynamic T 51-i

KEYBOARD APP

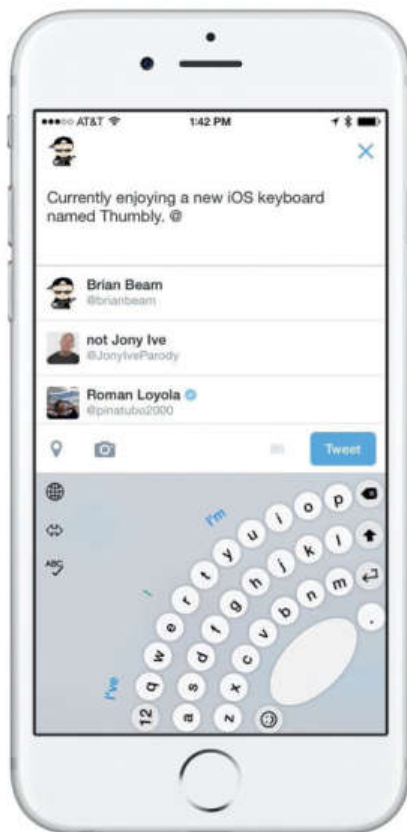
## THUMBLY 1.0: A ONE-HANDED ALTERNATIVE iOS KEYBOARD

BY BRIAN BEAM

**LIKE MANY PEOPLE, I**

oftentimes hold my iPhone in one hand and type with my thumb. This was actually fairly easy to do on the smaller screens of the older iPhones, but as screen sizes have gotten progressively larger, that practice has become more challenging. And unless you have particularly large hands, typing single-handedly on the iPhone 6 Plus seems practically impossible; at least not without Thumbly Keyboard ([thumblykeyboard.com](http://thumblykeyboard.com)), a \$1 alternative iOS keyboard by Ronald McLaren.

As its name implies, Thumbly is an alternative iOS keyboard with a layout that's optimized for one-handed typing. Rather than using the regular typewriter-style keyboard layout that spans the entire screen,



### THUMBLY



#### AT A GLANCE:

An alternative iOS keyboard with a layout optimized for one-handed typing.

\$1

#### COMPANY:

Ronald McLaren

Thumbly's keyboard is laid out like a fan at the bottom corner of the device. This lets you hold your iPhone or iPod touch in one hand and reach all the characters with your thumb without having to stretch your hand across the full width of the screen.

Like many other keyboards, Thumbly predicts your next word and presents those choices above the top "row" of keys. It also offers autocorrection, which you can easily toggle on or off directly from the keyboard. When enabled, autocorrect will also flag unrecognized words and record them for later use when you select them. There are special keys that switch the keypad to numbers and symbols, as well as a small collection of smilies and emoji characters. Another handy key flips the keyboard from one side to the other in order to accommodate both left and right-handed use.

Typing with Thumbly felt a little odd at first, but since it still uses the familiar QWERTY layout, I grew accustomed to it pretty quickly. The keys seem a little small for my fairly normal-size hands, so some people may find that it takes a little practice to hit the smaller targets. But handily, little bubbles pop up to show each character you're typing in case there's any doubt. The word suggestions could stand to be a little larger and bolder, as they're sometimes difficult to read clearly. But highest on my wish list is a swipe-to-type option. I'm a big fan of swipe-style keyboards and this option seems like an obvious choice for a keyboard like Thumbly; being able to type with one hand while keeping your thumb planted on the screen would be a big help, especially when wielding a huge device like the iPhone 6 Plus.

The only language Thumbly currently offers is US English, so hopefully the developer has plans to add more languages. On a similar note, Thumbly lacks the ability to select accented versions of letters, so I'm hoping this feature will be added as well.



**THUMBLY'S** left-handed keyboard.

## **BOTTOM LINE**

For a 1.0 product, I think Thumbly is a great start toward a convenient solution for people who prefer to type on their iOS devices with one hand. More so, I think it has the potential to be especially helpful to those who are forced to use their devices one-handed due to mobility issues. For that reason alone, I recommend that everyone download the app and help support the developer in making Thumbly even better. ■

# What's new at the App Store



## MEAL-KIT DELIVERY SERVICE

Blue Apron ([blueapron.com](http://blueapron.com)) is a gourmet meal-ingredient service with an eponymous app that features seasonal recipes, how-to videos, and stories about the service's farmers and suppliers. You can manage your account from the app, review the meals, and even share photos of your finished creations. Hello-Fresh ([hellofresh.com](http://hellofresh.com)) is pretty much the exact same kind of service that also has an app of the same name. It's a way to ensure meals every night of the week!"

## Giphy Cam



Giphy Cam ([giphy.com/apps](http://giphy.com/apps)) lets you record a GIF on your iPhone, add effects to it (more than 40 overlays and effects are available), and then share via Twitter, Pinterest, or Facebook Messenger.

## Likealike



Likealike ([go.macworld.com/likealike](http://go.macworld.com/likealike)) is similar to Meetup—where the older service is event-driven, Likealike is user-driven: Not only can you find things to do, but you can find other people who like to do the things you do and make plans with them. You can also do things the old-fashioned way: Search for groups and events, show up, and hope you're welcomed by the older members of the group.

## Workflow



The best new feature in Workflow ([my.workflow.is](http://my.workflow.is))? The "Today Widget," which lets you pull down your Notification Center to check your task list, make changes, and generally get things done even more efficiently.

## Final Fantasy VII



Final Fantasy VII ([go.macworld.com/ff7sp](http://go.macworld.com/ff7sp)) dropped in the biggest way: Price-wise (\$20!), memory-wise (you'll need 4GB of free space on your iOS device to download it), and pre-established reputation-wise (11 million units of the game were sold before it came to Apple's mobile platform). If you've got the money and the gigabytes, it's time to say hello again to an old friend. —JOEL MATHIS

# Sanitize your phone

This month's roundup of accessories includes a device we'd never before considered: One that cleans your phone while charging it. Check out PhoneSoap and other fun, useful accessories.

## PHONESOAP

The \$60 PhoneSoap Charger ([phonesoap.com](http://phonesoap.com)) is a product we didn't actually know we needed until now. "PhoneSoap Charger is proud to be the first and only cell phone charger that cleans and sanitizes your phone while it charges." It bathes your phone in bacteria-killing ultraviolet light, cleaning the device without subjecting it to water or chemicals.



## VUDE

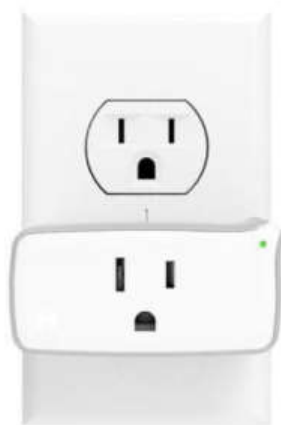
The idea of virtual reality headsets is at once futuristic and retro—like something out of The Lawnmower Man. The \$49 Vude Smartphone VR Headset ([getvude.com](http://getvude.com)) lets you play games on your iOS device—but instead of squinting your eyes at a small screen, you'll be seemingly immersed in gameplay. This is an Indiegogo project; the makers say they need \$11,000 to begin production.



# Accessories

## SPHERO

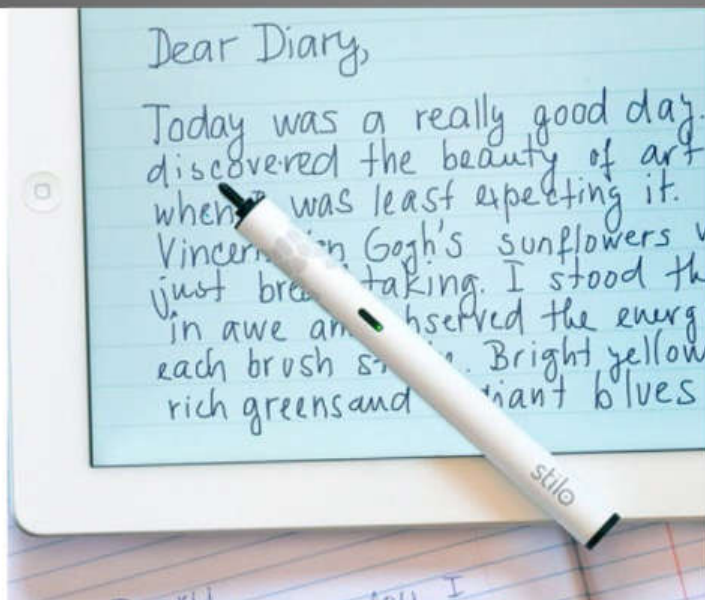
The \$130 Sphero SPRK Edition ([store.sphero.com](http://store.sphero.com)) is designed to “inspire a love of robotics, coding, and STEM principles... all through play.” Download the app to your phone, then program it—using the C-based language called OVAL—to make your spherical robot move.



## IHOME

The \$40 iSP5 SmartPlug ([ihomeaudio.com](http://ihomeaudio.com)) lets you “control small appliances up to 1800 watts or under, including lights, window air conditioners, fans, portable heaters, coffee makers, home audio systems and more” using voice commands on devices running iOS 8 or later. You’ll need the iHome Control app to run the system.



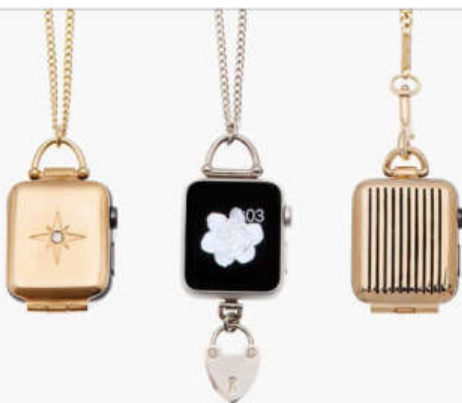


## STILO

The \$70 Stilo stylus ([stilopen.com](http://stilopen.com)) reputedly works with all kinds of apps—for note-taking, drawing, handwriting and more. The 1.9-mm tip “works without delay, lag, or skipping.”

## BUCARDO

The Pendulum Collection ([bucardostyle.com](http://bucardostyle.com)) is still in its Kickstarter phase, but we like the core idea: Stick your Apple Watch on the end of a chain, like a pocket watch or pendant, and rock your new-school iOS device in a very old-school way. (Next up: Google Glass is replaced by Google Monocles.)



# HANDS-ON WITH THE iPhone 6S AND 6S PLUS

Live Photos and 3D Touch  
are especially delightful.

BY SUSIE OCHS

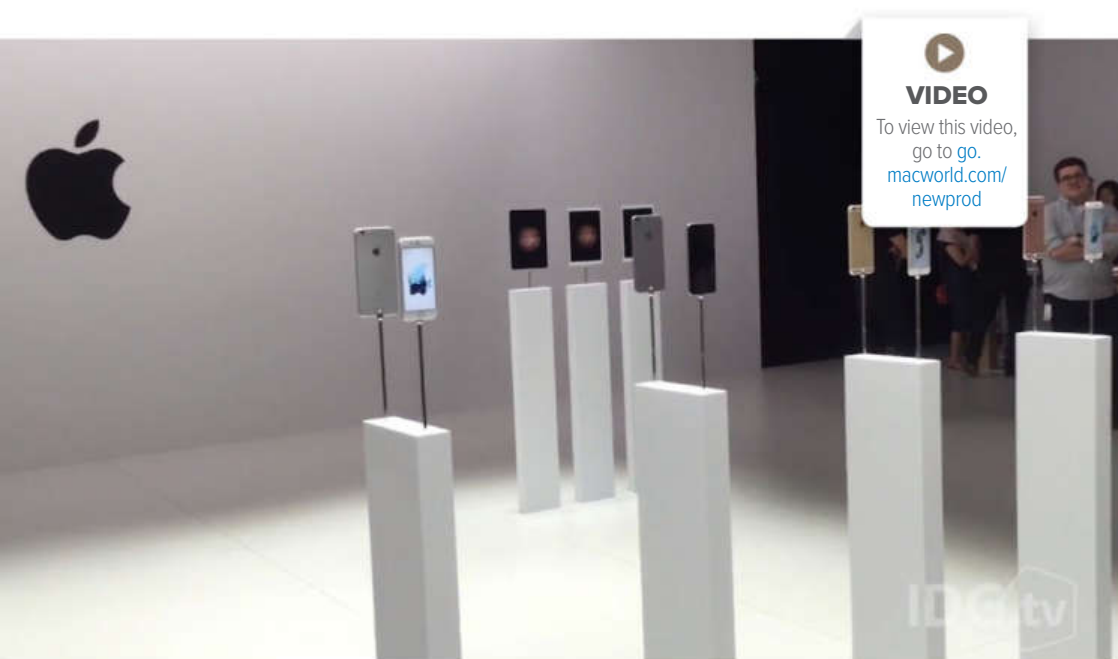


“The only thing  
that’s changed  
is everything,”  
Apple said

about the new iPhone 6s and iPhone 6s Plus ([go.macworld.com/6s](http://go.macworld.com/6s)) at a recent Apple event. That’s both true and untrue. The case looks pretty much the same, the screen sizes didn’t change, and the entry-level model still has a paltry 16GB of storage. But inside it’s an all-new iPhone with some impressive new capabilities.

I got hands-on time with the new models, and even though the presentation didn’t blow me away, the new 3D Touch and Live Photos features deliver a delightful experience.





## LIVE PHOTOS

“What is a picture?” pondered Phil Schiller on stage. After more than an hour and a half of keynote, this wasn’t a philosophical debate I was excited about having. But he had a point: A photo is a still image of a moment, but a moment can have a beginning, a middle, and an end that one frame can’t always fully represent. Enter Apple’s new Live Photo feature. It’s on by default in the main Camera app, and if you leave it on, it automatically captures 1.5 seconds, er, *moments*, before and after your shutter press.

That sounds like a video, but Apple says it’s not a video. These are 12-megapixel photos captured by the rear iSight camera, and if you send them to a friend who’s using iOS 9 or El Capitan, an animation comes with. (And if you send them anywhere else, they arrive as plain JPEGs like usual.)

Flipping through the Live Photos in the Camera Roll, you’ll see a little glimpse of the animation—it’s just enough motion to let you distinguish a Live Photo from a standard one. When you press harder on a Live Photo (a maneuver Apple calls 3D Touch on the new iPhones), you’ll

see the full three seconds of motion.

I have a 3-year-old, and a lot of my photos of him wind up blurry because at least some part of his body is in motion virtually all of the time—the boy is a walking wiggle. I don't think you get to scrub through a Live Photo frame by frame and pick out the single still image that's not blurry, but getting to see an animation of one of his wiggles would beat any blurry photo, or one where his eyes are closed.

Developers will get to use Live Photos too—Facebook is working on supporting the feature, aiming to finish by the end of this year. But even if they never leave the iPhone itself, Live Photos are just plain cool. You can even use one as your lock screen wallpaper, and then 3D Touch to make it move.

## 3D TOUCH

3D Touch, you ask? Yup, that's the other big feature exclusive to the iPhone 6s and 6s Plus. It works just like Force Touch on the Apple Watch—you press harder, like you're trying to push right through the screen, and that's a different kind of touch than a regular swipe or tap. This will let you interact with apps (from Apple *and* third parties) in new ways.

For example, you can 3D Touch app icons on the home screen for



**SEE A LIVE PHOTO** wallpaper in action on iPhone 6s Plus: [go.macworld.com/livephoto1](http://go.macworld.com/livephoto1)



**WATCH LIVE PHOTOS** on iPhone 6s Plus: [go.macworld.com/livephoto2](http://go.macworld.com/livephoto2). Use 3D Touch to see the whole animation



**3D TOUCH ICONS** on the home screen make for some quick shortcuts, like to your three most recent contacts.

shortcuts to certain features: The Facebook icon hides shortcuts for changing your status or checking in, while the Camera app's icon holds options for taking a selfie or shooting a new video. If you attempt to invoke 3D Touch on an icon that doesn't support it (like Health), you'll see the icon pop a little to let you know that the 3D Touch did in fact register, but nothing else is going to happen.

3D Touch gets even cooler once you open apps. You can use it to preview a new message in Mail, but it's not quite as handy as Quick Look

in OS X, because the preview disappears when you lift your finger back off the screen. During my hands-on time, I found myself 3D Touching a message, and then lifting my thumb to see what it says. But of course, the message preview vanishes, so I 3D Touch it again. And again, and again. It would be quicker to just tap the message to open it.

But the preview isn't really for reading, it's for quick triage. Apple calls the first preview the "peek," and if you don't lift your finger, you can swipe up, left, or down for options.



#### PODCAST

[go.macworld.com/applecast](http://go.macworld.com/applecast) to listen to our podcast about the new Apple products.

Swipe right to mark the message as read—you'll see a Mark As Read option as the preview slides to the right to remind you what will happen when you lift your finger.

Swipe left to delete the message. Swiping the message up produces buttons to reply, forward, flag, remind you about the message later, or move it elsewhere. Since you need to tap those buttons separately, the swipe-up move does fix the preview window in place.

If you 3D Touch the peek again, you'll open the message, a move Apple calls the "pop." If you peek and don't pop, the message doesn't get marked as read, so peeking in is a quick way to see if an email is the droid you're looking for without having to go back and mark it as *unread* if it wasn't.

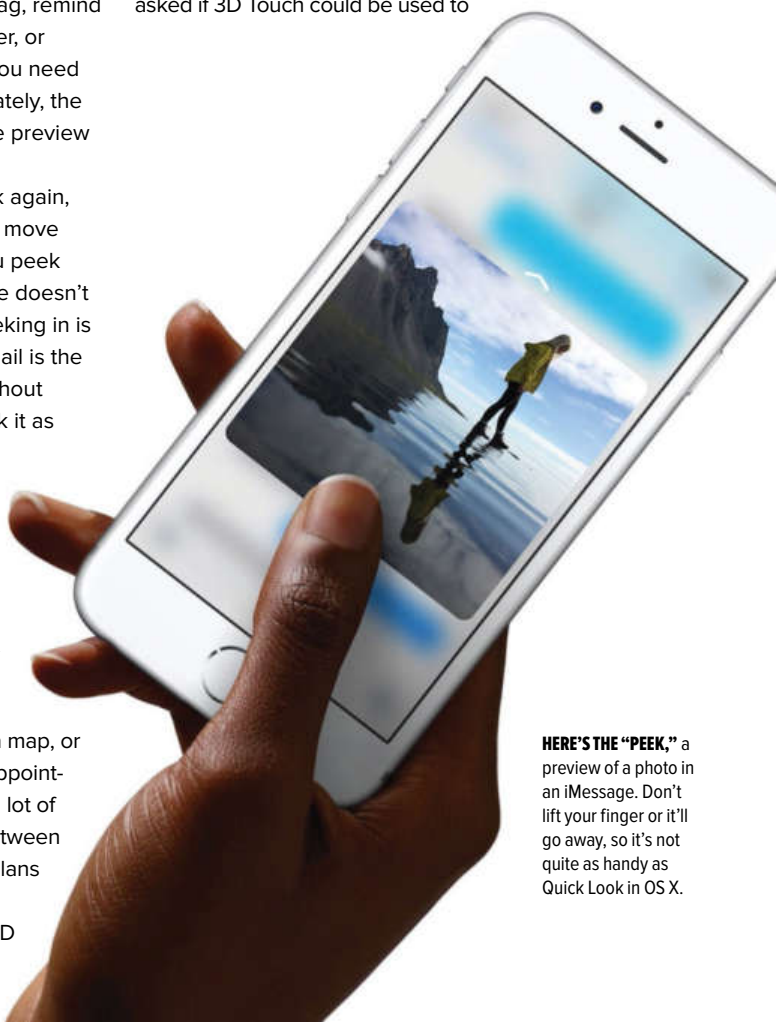
3D Touch does tons of things in Messages, too: Hard-press a name for options to call, FaceTime, add to contacts, and so on. Hard-press URLs to peek at them, and again to pop into Safari. Hard-press street addresses to see them on a map, or dates to make a calendar appointment. This should prevent a lot of switching back and forth between apps when you're making plans with groups of friends.

As with Live Photos, the 3D

Touch feature is open to developers.

For example, Facebook's app icon has shortcuts to post a new status or check in right from your home screen.

Instagram lets you 3D Touch everything, peeking into thumbnails and user profiles anywhere in the app. I asked if 3D Touch could be used to



**HERE'S THE "PEEK,"** a preview of a photo in an iMessage. Don't lift your finger or it'll go away, so it's not quite as handy as Quick Look in OS X.



provide haptic feedback for an iPhone keyboard, and the rep didn't think that was in the API just yet, but wasn't totally sure. Still, even as it is today, I think 3D Touch has the potential to make Apple's large-screened phones easier to navigate with one hand.

Early adopters of the Apple Watch had mixed feelings about Force Touch on that device. It's unbelievably handy, but not exactly intuitive—there's definitely a long learning curve before your brain remembers where to Force Touch and what you'll find once you do, since every app can use it differently. In my short hands-on time with the iPhone, I had the same problems, but hopefully once the iPhone 6s is in my possession full-time, 3D Touch will quickly

become second nature.

## CAMERA AND HARDWARE

The iPhone's rear iSight camera has been upgraded to 12 megapixels, and can shoot 4K video. The improved FaceTime camera on the front can take 5-megapixel stills. I didn't get to fully test either in the demo room, of course, but the shutter speed is crazy fast, and zooming in on the demo photos on each device revealed tons of detail. Panoramas are up to 63 megapixels now, and I love how their dedicated album in iOS 9 shows you the whole panorama in each thumbnail.

Besides the new cameras, though, the hardware is nearly the same. The



second-generation Touch ID home button works faster, according to Apple, so we'll do some side-by-side tests when we get our iPhone 6s review unit. The new rose gold color is really nice in person, and Apple was smart to release it alongside a rose gold-colored aluminum Apple Watch Sport, so you can match colors without having to mortgage your home for a rose gold Apple Watch Edition.

The iPhone 6s and 6s Plus are ever-so-slightly thicker than the iPhone 6 and 6 Plus, but only by two-tenths of a millimeter, so definitely not noticeable when you're holding them. Cases for the new phones should fit the old phones, and cases for the old phones *may* fit the new ones, depending on their design and materials. All the buttons and ports are in the same place, and so is the camera.



Preorders started September 12, with phones launched in the U.S. and 11 other countries on September 25. Stay tuned to future issues of *Macworld* for our full review of these two new additions to Apple's iPhone product line. ■

# How to make a movie with an iPhone:

AN INTERVIEW WITH  
*TANGERINE* DIRECTOR  
SEAN BAKER

BY CAITLIN McGARRY

**PLUS:** THE FIVE  
TOOLS YOU NEED  
TO MAKE YOUR  
iPhone FOOTAGE  
LOOK CINEMATIC.



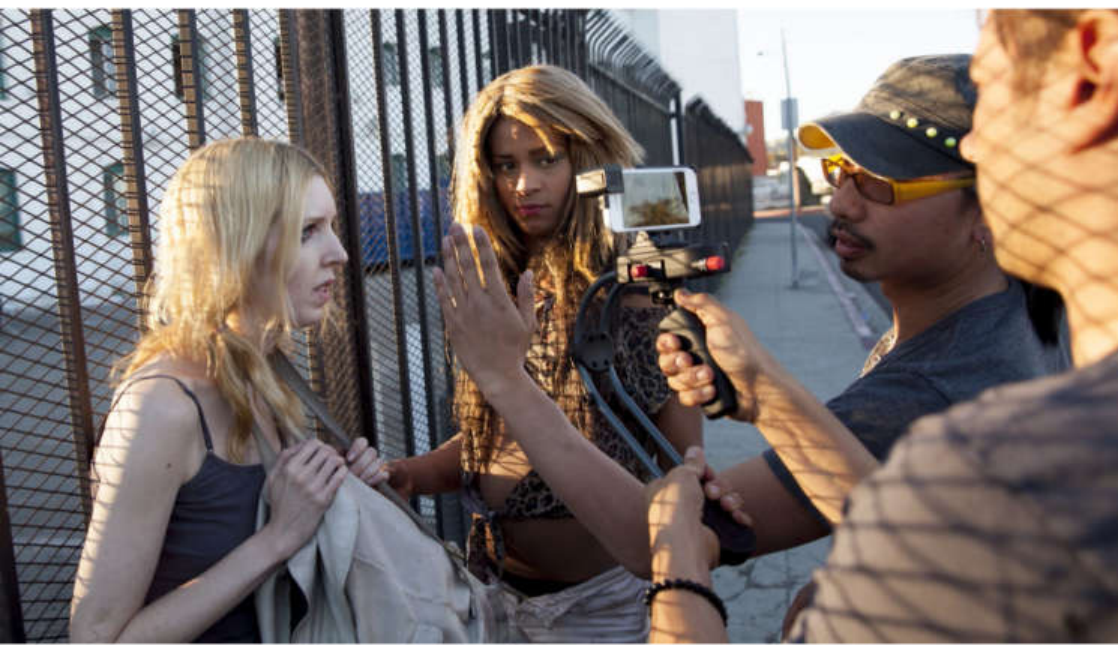
**T**angerine is a movie so vivid and real that you feel like you're walking the streets of Los Angeles with its main characters. The film takes place on Christmas Eve, which in Hollywood is just another warm day, and the cinematography radiates that heat. But as you trail behind best friends Sin-Dee and Alexandra as they search for Sin-Dee's cheating boyfriend, you'd never realize that with an iPhone, you too could create that scene.

*Tangerine* ([go.macworld.com/tangerine](http://go.macworld.com/tangerine)) director Sean Baker used his iPhone 5s to direct the movie, the first iPhone film shot in scope, which you wouldn't guess if you saw it on the big screen (and you should—it's now playing). *Tangerine* isn't com-

posed of shaky handheld footage, like the terrible videos littered throughout my Camera Roll. It looks cinematic.

Baker used a few filmmaking tips and tricks to polish his iPhone-shot dailies, but he says literally anyone

COURTESY OF  
SHIH-CHING TSOU





can re-create what he did—and maybe even see the finished product debut at Sundance Film Festival, like *Tangerine* did this year. I asked Baker how he pulled it off and what equipment amateur filmmakers can use to turn their iPhone videos into Sundance films. The below interview has been edited for length and clarity.

**Macworld:** Was the decision to shoot *Tangerine* on an iPhone a financial decision or a creative one?

**Baker:** It really started as a financial decision. We were stuck with a very tight budget, and I was exploring many different options. I came across a Vimeo channel that focused on iPhone experiments. I was very impressed. Then I found the Kickstarter campaign for Moondog Labs ([moondoglabs.com](http://moondoglabs.com)) that lets you shoot in true scope widescreen ratio, and that's what convinced me as a filmmaker that it was not only going to save us a ton of money but would make it possible. The iPhone

**BAKER TENDS TO WORK** with new actors who are more comfortable in front of an iPhone than a high-end camera.

COURTESY OF  
MAGNOLIA PICTURES

5s made it to a point where the camera was better, the resolution was up there. This anamorphic adapter told me it could be elevated to a cinematic level.

**Your iPhone video looks nothing like my iPhone video. Did the footage require extensive post-production work?**

We definitely treated the film in post-production. We really oversaturated the colors. That was a purposeful thing for the aesthetic. The quality is there. The resolution is already there.

The iPhone in conjunction with the Filmic Pro app, the resolution is HD quality. This was more about setting a style. Like any other film, we wanted it to be color corrected properly and professionally.

**What were the disadvantages of shooting on an iPhone?**

Because it's such a small lens, there's basically a very extremely deep depth of field, if you can even call it a depth of field. Everything is in focus. If you have your hand in front of the camera, your hand will be in focus as

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MAGNOLIA PICTURES



well as 10 miles down the horizon. That's a look we're not really used to in cinema. We're used to having a shallow depth of field. Once you get past that, you can accept that it's a different look. There were no disadvantages in terms of the workflow. Once we got the footage off the iPhone at night in iTunes, we'd back up our raw files and transcode it so it was easier to edit in Final Cut Pro. It was as easy as editing any other piece of media.

**You worked with a lot of acting newcomers for *Tangerine*. Do you think using an iPhone to shoot had an effect on their performances?**

There's always this hump, this 1-week hump where the first-time actors have to get used to the fact that there's a camera in their face. It takes them about a week to get comfortable. In this case, because we're basically using a communication device that everyone owns, that didn't factor in this time. The intimidation factor was off the table from the beginning.

**Were you in touch with Apple at any point during the process of making or distributing the movie?**

We haven't had a terrific amount of communication with them, but we did

do some Apple Store talks and they were nice enough to give phones to the cast.

**Would you shoot another movie on your phone?**

Right now, no, but who knows down the line? I like to switch it up every time, and of course I'm still a fan of film in general and I want to shoot on film when it's still available. Even in the year and a half since we shot, Filmic Pro has advanced to 2K, which is double the resolution we captured, so it's amazing the technological advances that happen in such a short period of time. In a year from now, I might be presented with options that make it quite attractive.

**Can any amateur filmmaker achieve the look of *Tangerine* with their iPhone?**

I think so. I'm not going to say I did anything special. There were very basic steps we took that can be achieved by anybody. We did use professional sound. Young filmmakers interested in doing this, don't think you can get away with using recorded sound on the iPhone. You have to record it separately.

*Tangerine was released in July and is still playing in a theater near you. Check your local listings for show times.*



## THE 5 iPhone FILMMAKING TOOLS YOU NEED

Ready to get started? Baker recommends this equipment and software, all of which he used to make *Tangerine*.

**Steadicam Smoothee:** The one thing you can't avoid when shooting video on your phone is your hand's shakiness. "That translates terribly on the big screen," Baker said. So he invested in a small stabilizer, Steadicam's Smoothee ([go.macworld.com/smoothee](http://go.macworld.com/smoothee)), which you attach to the phone and grip in your hand. The Smoothee gives some *Tangerine* scenes the effect of a classic Steadicam shot or a crane, all done with an iPhone.

**PRICE:** \$149

**Moondog Labs anamorphic adapter:** This is the iPhone accessory that convinced Baker that using his phone to shoot a movie would work. The anamorphic lens adapter ([moondoglabs.com/store](http://moondoglabs.com/store)) elevates your iPhone video footage to cinema quality. "It makes it look like a bigger film," Baker said. It's also the reason Baker chose to shoot his film with an iPhone instead of another device, aside from the fact that he already knew his way around the 5s. Moondog only makes its adapters for iPhones.

**PRICE:** \$175

**Filmic Pro:** Baker relied on this popular iOS app ([go.macworld.com/filmicpro](http://go.macworld.com/filmicpro)) to capture iPhone footage that didn't look like video—it looks like a film. That's because Filmic Pro captures footage at high-speed frame rates and lets directors lock focus and aperture. "It manipulates the iPhone to capture footage at a higher quality than if you were using the basic camera mode," Baker said.

**PRICE:** \$7.99

**DaVinci Resolve:** Professional-grade color correction is one thing you can't skip on, Baker said, and he recommends DaVinci Resolve's ([go.macworld.com/davinciresolve](http://go.macworld.com/davinciresolve)) color correction tools to color video shot on the iPhone. Baker also hired a professional color correction specialist to work on the *Tangerine* footage, but you could go DIY if you want.

**Price:** Free for entry-level version, \$995 for professional

**Final Cut Pro:** Professional filmmakers use Final Cut Pro ([apple.com/final-cut-pro](http://apple.com/final-cut-pro)) to edit their footage on Macs, and Baker is no exception.

**PRICE:** \$300



## How to start fresh with a new user account

Remove the cruft of years with a clean install of OS X.

BY JOHN MOLTZ

I am a man of many Macs and have been for some time. When you use a platform over a long period of time, you're bound to run into some problems. Enter my 2009 MacBook Pro.

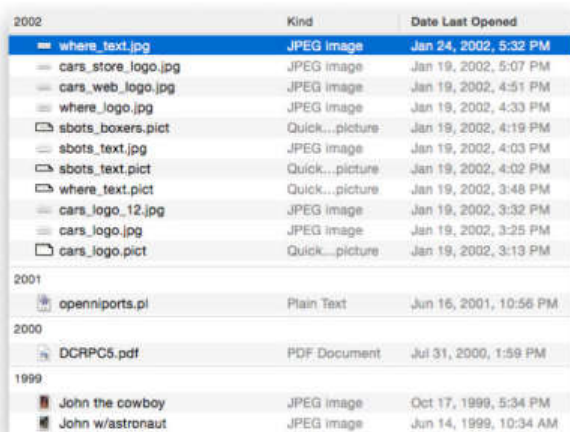
This hardy workhorse was my main machine for years.

I upgraded the internal drive to a 250GB SSD and maxed the RAM out at 8GB. Even so, a Core 2 Duo doesn't compare to an i5, even at a slower clock speed, so I eventually bought a MacBook Air with half the drive space and half the RAM. Now the two machines split duties. While I go about my daily work and play on my Air, the Pro sits in my home office, hosting my definitive iTunes and Photos libraries, my ancient emails, and any old files I still sometimes want access to.

Up until last week, my user account on the MacBook Pro was one that had been migrated forward through OS X upgrades and Migration Assistant since moving from OS revision to OS revision and machine to machine since—and I can't believe I'm writing this—2003. That means this account has existed since I was using Mac OS X 10.3 Panther on a PowerPC machine (I tried earlier versions of OS X but probably still mostly used OS 9 until about then).

Running the OS X upgrade process (as opposed to doing clean installs) and using Migration Assis-

tant to move accounts to new machines both have worked fairly well for me. But over a period of 12 years, some unwanted baggage can accumulate, and that user account



2002		Kind	Date Last Opened
	where_text.jpg	JPEG image	Jan 24, 2002, 5:32 PM
	cars_store_logo.jpg	JPEG image	Jan 19, 2002, 5:07 PM
	cars_web_logo.jpg	JPEG image	Jan 19, 2002, 4:51 PM
	where_logo.jpg	JPEG image	Jan 19, 2002, 4:33 PM
	sbots_boxers.pict	Quick...picture	Jan 19, 2002, 4:19 PM
	sbots_text.jpg	JPEG image	Jan 19, 2002, 4:03 PM
	sbots_text.pict	Quick...picture	Jan 19, 2002, 4:02 PM
	where_text.pict	Quick...picture	Jan 19, 2002, 3:48 PM
	cars_logo_12.jpg	JPEG image	Jan 19, 2002, 3:32 PM
	cars_logo.jpg	JPEG image	Jan 19, 2002, 3:25 PM
	cars_logo.pict	Quick...picture	Jan 19, 2002, 3:13 PM
2001			
	openpiports.pl	Plain Text	Jun 16, 2001, 10:56 PM
2000			
	DCRPC5.pdf	PDF Document	Jul 31, 2000, 1:58 PM
1999			
	John the cowboy	JPEG image	Oct 17, 1999, 5:34 PM
	John w/astronaut	JPEG image	Jun 14, 1999, 10:34 AM

you rely on can get a little temperamental. How does a computer with a user account that's more than a decade old express its temperament? It's slow. It lets you rename the computer in the Sharing Preferences pane but doesn't change the name in the Terminal. It refuses to let you connect via screen sharing. It takes two tries to reboot it. It's generally just surly and difficult.

**LOOK AT** how old these files are!

Enough was enough. It was time to start over with a fresh install.

## BACKUP, BACKUP, REPEAT

This wasn't going to be easy, though. As I said, this account had several media libraries, was where I synced music to my Sonos from, had Mailboxes with mail in them dating back to 2001, was our Minecraft server and had a mess of old games and documents I still wanted. I couldn't just trash everything.

The first move, obviously, was to back up. So I backed up three times in three different ways. Really. I normally keep two backups of my important drives, a daily one in Time Machine and a weekly one via SuperDuper ([shirt-pocket.com/superduper](http://shirt-pocket.com/superduper)). Why both? Time Machine can be fickle and a SuperDuper backup provides a complete,

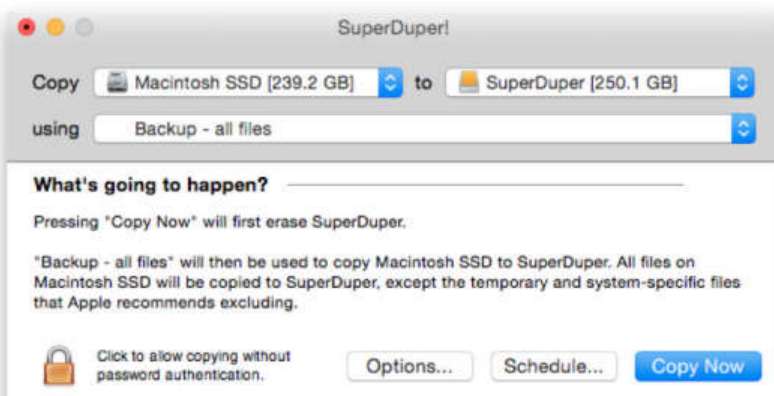
bootable disk image in case a drive goes south on you (sometimes a drive just takes off to Mexico) and you need to run OS X off it in an emergency.

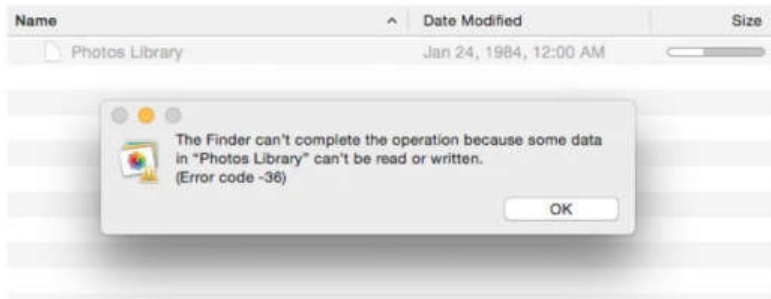
The third backup was just a straight copy of files from my Documents folder, my iTunes and Photos libraries, those mailboxes, and a few other things I didn't want to lose. I probably didn't need this, but hey, I've got drives and when you're blowing up a user account with all your important crap, it's not the time to be stingy.

## CLEANING HOUSE

Everything backed up, it was time to reformat the drive. That proved easier said than done. I had saved the Yosemite install application when I first upgraded to OS X 10.10 (if you don't have it, you can download an

**SUPERDUPER** to the rescue.





**WHEN YOU** have enough backups, weird error messages like this aren't a cause for (much) concern.

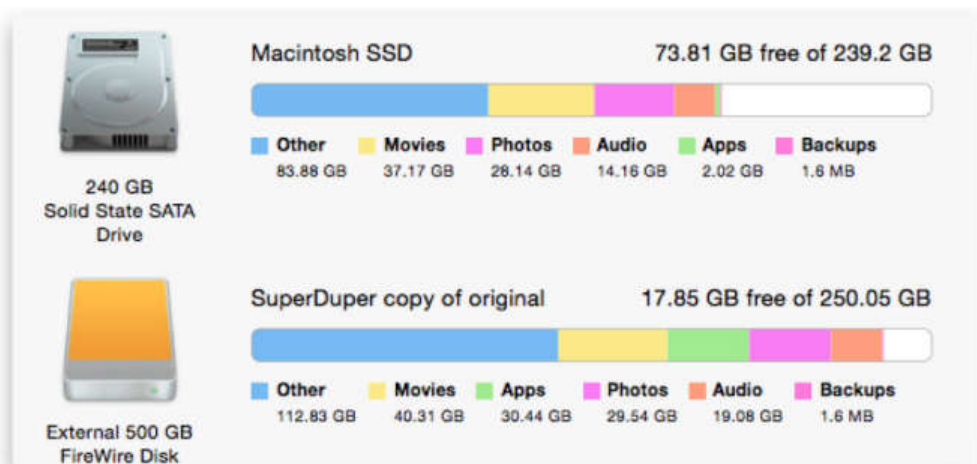
updated version ([go.macworld.com/updatev](http://go.macworld.com/updatev)) from the Mac App Store) so I copied it straight to the Applications folder on the drive I wanted to reformat and ran it. It rebooted and started the Yosemite install process, but it never gave me the option to format the drive. When the process was done, I found I had the same user account, just running 10.10 instead of 10.10.4. That ... was not what I wanted at all. I had thought you could reformat the drive via that process but apparently it's not an option when you're running the install from the drive you're installing to.

I could have booted into Recovery mode to run the installer, but then I would have had to wait for it to download. Who's got time for that in this economy? But guess what I had. A bootable FireWire 800 drive copy made via SuperDuper. So I booted off of that, reformatted the internal drive, and ran the installer. Then I rebooted off of the freshly formatted drive, finished up the niceties like signing in

to iCloud, and ran the Yosemite updates from the Mac App Store. (I could have avoided this by downloading the updated installer but I figured the updaters would be smaller. That may not have actually been true.)

Now to put my data back. Remember, I was starting over. Migration Assistant had been bringing forward some amount of unidentifiable cruft dating back to 2003 that I was trying to get rid of, so using it was not only not an option, not using it was the whole point. I needed to copy things back in old school.

Documents, my iTunes library, and the Mail mailboxes copied back from the drag-and-drop copies I made with no problems. The Photos library, however, failed to copy back saying "some data in Photos Library could not be read or written." Ah, yes. Probably all of my ineffable photos. Understandable. They do have a certain *je ne sais quoi* about them. Well, this is why I made three copies.



The copy from the SuperDuper backup worked fine.

After importing the Mailboxes to Mail, I pointed iTunes and Photos to the correct libraries. In iTunes you can change this through Preferences or by holding down Option when starting the application. In Photos the only way to do it is by holding down Option. I noticed both applications have different prompts for selecting a library at startup because the person in charge of consistency at Apple was off that day. I also had to reinstall Java for the Minecraft server, but I left Flash behind (it's long gone from my MacBook Air). I refrained from installing any of the dozens of third-party applications that had been on the machine previously. In its role as a data host, it probably won't

need them.

Now I had a fresh install of Yosemite with all of my ancient data but without whatever Bush-era settings were causing problems. I wouldn't say it's exactly like getting a brand-new machine, but it's at least a major improvement. Because I left a host of applications behind, I have far more drive space. Things behave better almost across the board. It's faster, happily lets me screen share, reboots without any trouble, and has its own new name instead of the one I migrated that it didn't want to change.

While this process takes some time, I recommend it if you've used Migration Assistant and OS X upgrades over existing installs for years and have a Mac that's giving you fits. ■

**MY MAC** works better, and I saved a lot of space.

Welcome to Greenbot,  
a website for  
Android enthusiasts.



We've got the 'droid info you're looking for.  
Helpful tips, critical reviews, and expert  
analysis for passionate Android users  
of every experience level.

**[www.greenbot.com](http://www.greenbot.com)**







## Goodbye to the ghosts of emails past

Get rid of those unwanted email addresses that show up when composing a new email in Apple's Mail.

BY JEFFERY BATTERSBY

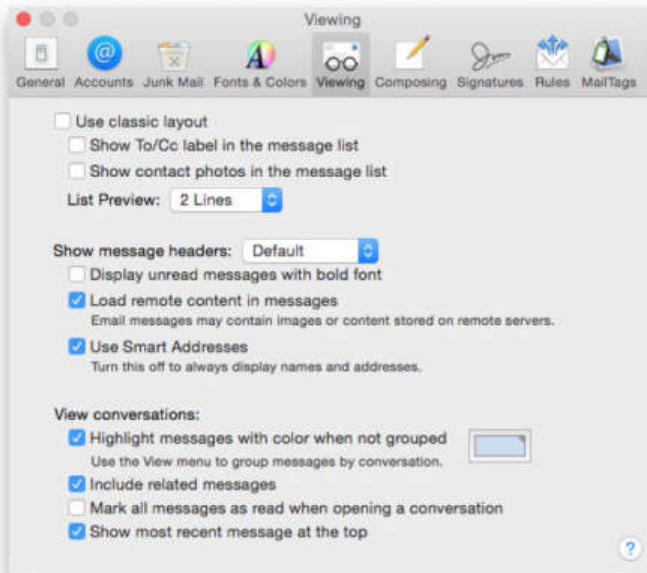
**A**fter using Apple Mail for a few years you may have noticed that when you add contacts to a new email message, a long list of email addresses appears. Some of these may be in your address book, but it's often the case that these names are people you haven't sent messages to in years or that you emailed once, but have no intention of emailing ever again.

Why the long memory? Apple's Mail app, for the sake of convenience, collects the names of everyone you send email to so you don't have to chase down an email addresses for people who aren't in your Contacts app. It's a nice feature, but may make addressing email messages a little messy after a few years go by. Fortunately, you have a couple of options for cleaning up the mess.

## GET SMART WITH SMART ADDRESSES

Apple's Mail app has a feature called Smart Addresses that's designed to make it easier for you to see who you're sending email messages to. Instead of displaying names and addresses in Mail's To field, Smart Addresses just displays the name of the email recipient. One of the benefits of using Smart Addresses is the option to delete previous recipients from Mail's collection of remembered addresses.

(Note: Help for the Mail app claims that the Smart Addresses option



needs to be selected in Mail's preferences in order for you to delete previous recipients from the To field. In my experience this is not the case. Your mileage may vary.)

Smart Addresses is enabled by default, but you can make sure this feature is on by:

> Opening the Mail App.

- > Selecting the Mail menu and choosing Preferences.
- > Clicking the Viewing tab.
- > Checking the box that reads Use Smart Addresses.

When you select Smart Addresses, it changes the way Mail displays addressing information from a full name and address to just an address-ee's name:

Once you enter the ancient email address you should note that there's a small arrow next to the recipient's name. Click that menu and you'll see an item in the list of menu options that reads, Remove From Previous Recipients List. Select this item and this ancient address will no longer appear when you address a new email message.

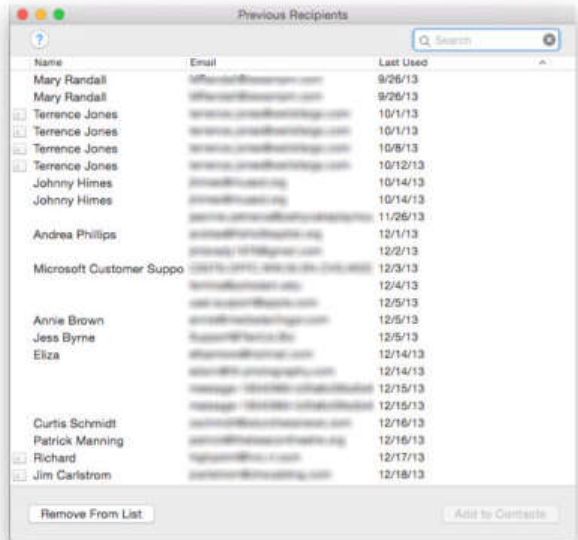
## THE TO-DON'T LIST

Granted, this is a pretty tedious way to have to remove old email addresses and, thankfully, there's a way to bypass the tedium.

- > With Mail open, select the Window menu and choose Previous Recipients.

This opens a window displaying a list of everyone you've sent email messages to. Take note of the first column. Anyone with a contact card next to their name is someone who is already in your Contacts list; nothing in that field means they're not. To add a previous recipient to your address book:

**MORE THAN LIKELY  
WHAT YOU REALLY  
WANT TO DO IS  
REMOVE ODDBALL  
EMAIL ADDRESSES  
COLLECTED BY THE  
MAIL APP.**



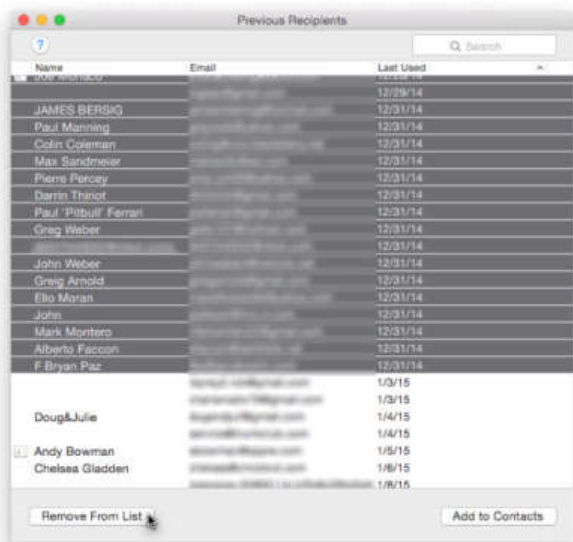
- > Select the recipient.
- > Click the Add To Contacts button at the bottom right of the Previous Recipient's window.

You should note that this Add To Contacts option does not insert this email address into the record for an existing contact if one already exists for the contact you've just added. To fix this you'll need to:

- > Open the Contacts App
- > Search for the name of the contact you just added.
- > If two contacts appear for the contact you added, select both contacts by clicking on the first and then Shift-clicking on the second.
- > Click the Card menu.
- > Select Merge Selected Cards.

More than likely what you really want to do is remove the many oddball email addresses collected by the Mail app. For my money the easiest way to figure out which addresses to get rid of is to sort the list by Last Used date column and delete from the top down:

- > Open the Previous Recipients window (Window → Previous Recipients).
- > Click the Last Used column header until the oldest date appears at the top.
- > Click the first address appearing in the list.
- > Scroll to the last date you want to delete addresses for and Shift-click



the contact associated with that date.

- > Click the Remove From List button.

You should note that doing this will not delete any contacts from the Contacts app; it only keeps Apple Mail from remembering recipients of past emails. ■

# Mystery of the unmovable mail

And how to sync iOS email folders across all of your devices.

BY JEFFERY BATTERSBY

If you're using email on your iOS devices, it's likely you've encountered the following scenario: You're going through your inbox and try to delete an email when the following message appears, "Unable to Move Message—The message could not be moved to the mailbox Trash."

Moving to your Mac, you discover you can delete the message without a hitch and that the message you delete from your Mac also disappears from your iOS device. But none of your iOS devices will let you delete the file.

You also note that any draft messages you create on an iOS device can only be found on the device they were created on. Not on any other iOS devices and not on your Macs.

Finally, you can't locate any of the messages you've sent from your iOS devices when you look for them on your Mac.

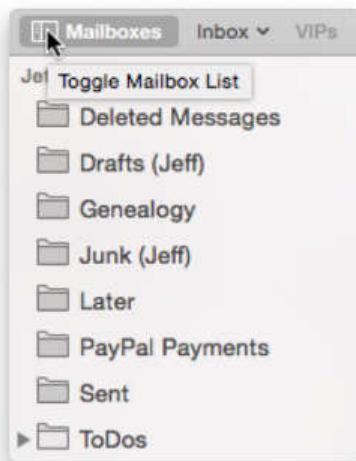
Why?

You're using iOS Mail's default settings, which use local storage on your iOS device instead of your mail server for storing drafts, sent, deleted, and archived mail. But, never fear, we can fix this in a flash.

## WHERE'S THE MAIL STORED?

When you use IMAP mail on your Mac (and, trust me, you should be using IMAP [[go.macworld.com/imap](http://go.macworld.com/imap)]) the default location for storing drafts,

deleted messages, sent mail, and archives is on your mail server. You can see where your Mac stores these files by clicking the Mailboxes link in Mail's toolbar. When you do, you should see something similar to



what's in this screenshot:

While it's not obvious from this screenshot or from looking at these folders on your Mac, everything here is a mirror image of the same folders on your mail server and they're synchronized with the same folders and on any other Macs you have that

use the same mail account. Delete a message on one device, and it's immediately deleted on all your other devices. Create a draft on your Mac, and that draft will show up on all your other devices too. (And that, my friends, is the beauty of IMAP.)

Here's the important point: whatever you do on your Mac will be reflected on your iOS devices too. Here's how to fix mail on your iOS device so that it works like mail on your Mac.

- > Open the Settings app on your iOS device.

- > Tap the setting for Mail, Contacts, Calendars.

- > Tap the account you want to make changes to. (It's likely that you have more than one email account on your iOS device. If you do you'll need to follow these instructions for each of your IMAP accounts.)

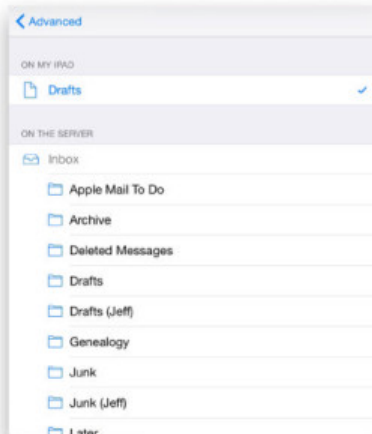
- > Tap the email address for the account.

- > When the Account settings window appears, scroll to the bottom of the window and tap the Advanced button.

- > Take note of the four mailboxes listed under the section titled Mailbox Behaviors: Drafts Mailbox, Sent Mailbox, Deleted Mailbox, Archive Mailbox.

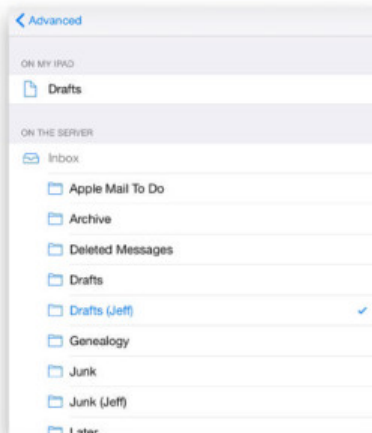
- > Tap the Drafts Mailbox and you should see two sections: On My iPad and On The Server. (If you've been

seeing the "Unable to move" message, there should be a checkmark next to Drafts in the section labeled



On My iPad.

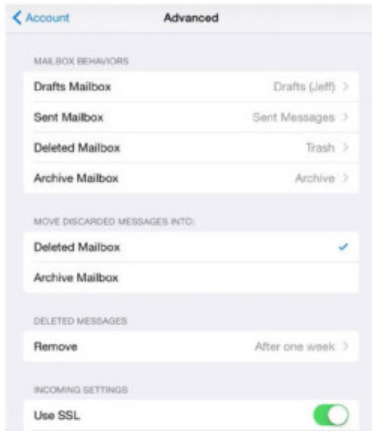
- > Tap the folder where you want



drafts saved on your server.

- > Tap the Advanced button at the





top of this window.

> When you're done, each of the Mailbox Behavior buttons should have the mailbox you selected listed next to it.

You will need to repeat this process for each of the Sent, Deleted, and Archived mailboxes on all of your iOS devices. You will also need to run through this process for all of your email accounts. But once you do, all of your devices will share the same mailboxes for all your mail. ■



# How to check your Mac's free hard-drive space

Wondering if your Mac has enough storage space for that massive download? Wonder no more.

BY NICK MEDIATI

In today's era of multi-terabyte hard drives, many of us don't keep as close an eye on our disk usage as we used to. Still, even the largest drives fill up eventually. If you don't know how to check your disk-space use on OS X, here's where to look.

## OPTION 1: FROM THE ABOUT BOX

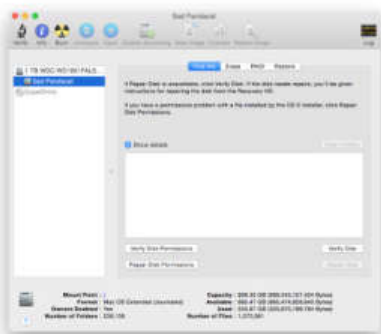
In recent versions of OS X, you can easily check your disk usage from the About box. Pop open the Apple menu, then select About This Mac. On OS X Yosemite or newer, click the Storage tab in the toolbar to see how much disk space you have available. (On OS X Mountain Lion or Mavericks, click the More Info button, then click Storage.) You'll also get a simplified overview of what sort of files are eating up your storage space.



**OS X'S ABOUT BOX** is the easiest way to see your hard drive's free space.

## OPTION 2: FROM DISK UTILITY

You can also view your free disk space from your Mac's Disk Utility



**OS X'S DISK UTILITY** provides basic information about your hard drive and other disks. It also lets you repair or reformat your disks.

app. Open Spotlight by clicking the magnifying glass in the upper right corner of the screen, then type Disk Utility in the search box that appears.

Once Disk Utility comes up in the list and is highlighted, press the Enter key.

Once Disk Utility opens, select your hard drive's name from the list. I renamed my hard drive "Sad Pandacat," but if you didn't change its name, it'll be named "Macintosh HD." Look in the lower

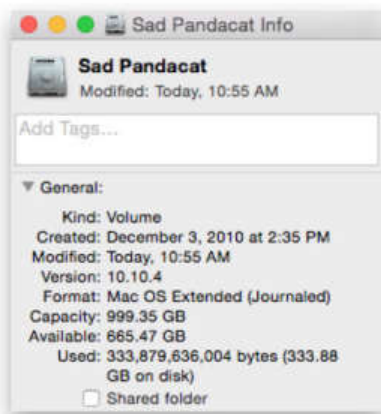
right corner to find your drive's capacity, its available space, its used space, and the number of files on the drive. You can also check the free space for any drive you have con-

nected to your Mac from this window, be it a USB flash drive or external hard drive.

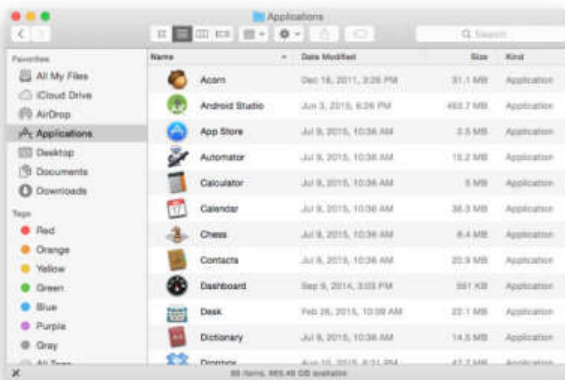
## OPTIONS 3 AND 4: FROM THE FINDER

The Finder gives you at least a couple ways to see how much free disk space you have. The first method is to check the Get Info window for your hard drive.

First, you need to find your hard drive in the Finder and select it. If it



appears in the Finder window sidebar or on the Desktop (it doesn't by default—go to Finder → Preferences to change that), click your hard drive's icon in either of those spots. If your hard drive icon doesn't appear there, go to Go → Computer, then click the hard-drive icon. Pop open the File menu, and select Get Info, and note the drive's capacity, avail-



able space, and used space.

If you would like to have an overview of your free disk space at all times from the Finder, you can turn on the Finder's status bar. Open a Finder window if you don't have one open already (click the Finder's Dock icon or go to File → New Finder Window).

Next, open the View menu and select Show Status Bar: This will show you how many items are in the current folder, and if you're viewing a folder on your hard drive (such as your Applications or Documents folder); you'll also get a readout of your hard drive's free space.

This method works fine if you know your way around your Mac's file structure reasonably well, but Apple has worked to hide a lot of the file system by default in recent years, so if you don't have a sense of place on your Mac, the first two options are better ways to go. ■

**WANT AN ALWAYS-VISIBLE** overview of your disk usage? Go to the View menu and select Show Status Bar.



**“ SURE,  
AT FIRST I WAS A LITTLE TAKEN ABACK  
BY THE WHOLE PEEING STANDING UP THING.  
BUT I TAUGHT HIM TO THROW A STICK  
AND NOW HANGING OUT WITH HIM  
IS THE BEST PART OF MY DAY.”**

**— EINSTEIN  
adopted 12-09-10**

**A PERSON  
IS THE BEST  
THING TO HAPPEN  
TO A SHELTER PET**



**adopt**

[theshelterpetproject.org](http://theshelterpetproject.org)







## How to be sure Photos for Mac stores full-resolution images

Photos for OS X coupled with iCloud Photo Library means that you're not sure where high-resolution images live for purposes of local backups.

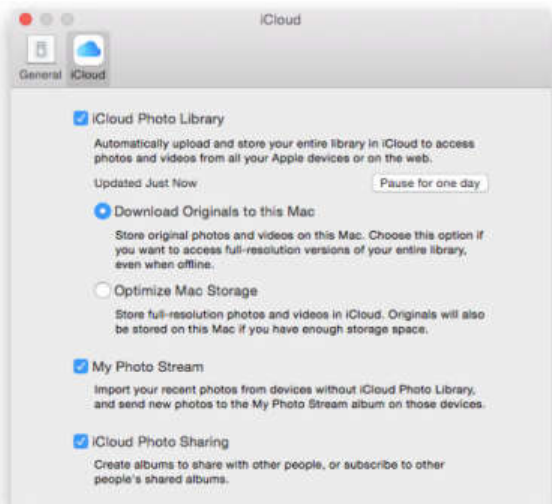
BY GLENN FLEISHMAN

**B**rian Cahoon is concerned about where his photos and other media live. As a former Aperture user, he used its vault feature to back up his library. But with iCloud Photo Library, Apple gives you the option to always keep high-resolution copies locally.

I don't think I can just copy the library since some may only be in the cloud at full resolution and the export feature doesn't create folders for years/months—it's just a dump of all files in one folder. I have 280GB of photos going back to 2001. Any ideas on how to get a full, verified copy of my photos on a backup drive?

There's no way around this: to ensure the ability of a complete backup, you have to anoint one computer as the place you set Download Originals To This Mac in Photos (Preferences ➔ iCloud). It's also possible to set that option in iOS, but I would wager that for people concerned about a backup, they'll have more photos and videos than can fit at full resolution on an iOS device.

If that option is set on none of your Macs, iPhones, or iPads, you'll wind up with a hotchpotch of preview images and videos and their originals scattered among devices, with the "truth"—the high-resolution media—only stored for



sure in iCloud. That's problematic if you're concerned Apple might have a server-farm meltdown and lose your originals (seemingly unlikely), a glitch that doesn't affect everyone but just a handful of people (a high possibility but statistically unlikely for any given person), or you want to stop paying for iCloud storage in the future ([go. macworld.com/stoppay](https://go.macworld.com/stoppay)) and switch to, say, Amazon or Google.

I've picked a master-copy machine: a Mac with a multi-terabyte external drive where I've located my Photos library. It's backed up continuously to a local external drive, as well as to a cloud-hosted backup service. In the worst case, I should have two cloud versions of everything: my backup service and Apple's iCloud. In the best case, I can just restore from the local backup. ■

**UNLESS ONE DEVICE** is set to download media originals, it's impossible to back them all up in one place.





## How to use the Retouch tool in Photos for Mac

OS X's Photos app has a more powerful Retouch tool than the one in iPhoto.

**BY LES A SNIDER**

**T**here's nothing wrong with a little vanity. After all, sometimes a perfectly good portrait is marred by small yet annoying stuff like a zit, makeup smudge, or stray hairs. Or maybe you captured an object in the frame you wish you hadn't. Happily, the Retouch tool in Photos for OS X can come to your rescue (it's not available in Photos for iOS). As you're about to learn, Photos' Retouch tool is more powerful than the one in iPhoto.

## HOW TO USE THE RETOUCH TOOL

The Retouch tool works by copying pixels from one area of your photo to another and then blending them (blurring, really) into the pixels you click or drag atop. To use it, select an image in Photos and then press Return to enter Edit mode, or press the Edit button in the upper right of the toolbar. Use the Zoom slider at the upper left to zoom into the image and, if necessary, drag while holding down the spacebar to reposition the image so you can see the thing you're about to remove.

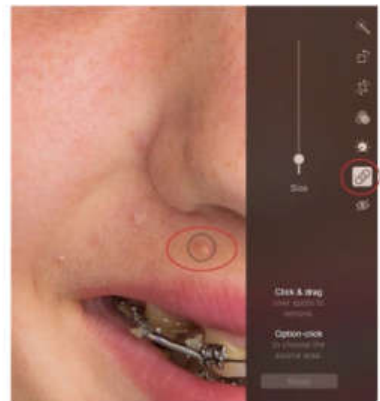
Activate the Retouch tool by clicking it or by pressing the R key on your keyboard. When you do, your cursor turns into a black circular outline rimmed with white, so you can always see the circle atop dark or light colors in your image. Adjust the brush cursor size so it's slightly larger than the item you want to remove. Use the Size slider at right or your keyboard: tap [ (the left bracket key) to make the cursor

smaller, or tap ] (the right bracket key) to make it bigger. Next, choose from one of the following two methods to send the offending item packin'.

### COPY PIXELS FROM JUST OUTSIDE THE CURSOR'S EDGE

If you've got plenty of good, clean pixels around the thing you want to get rid of—say, flawless skin around a blemish or a cloudless sky around a sensor spot—then single click it. You briefly see a white overlay marking the area you clicked, and when you release your mouse button, Photos blends the copied pixels into the surrounding ones. If the item fits easily inside your cursor, a single click is all it

**TO KEEP FROM PICKING** up adjacent colors—like the lips or shadow beneath her nose, make your cursor only slightly larger than the item you want to remove.





**HERE'S THE BEFORE**  
(left) and after (right)  
version of a photo  
in which blemishes  
were zapped and  
both eyebrows were  
trimmed.

takes to zap it.

If the item has plenty of free pixels around it, but it doesn't fit within a round brush cursor—think stray hairs, power lines, a scar, and so on—click and drag with the tool instead. When you do, Photos shows your brush-stroke as a white overlay. Release your mouse button, and Photos copies nearby pixels and blends them into the area you dragged over.

Keep your eyes peeled for any smudging that occurs from the pixel blending Photos performs. If necessary, press Command-Z to undo the last brushstroke you made and have another go at it, perhaps with a smaller brush or by repositioning the item within the brush cursor or by clicking instead of dragging (or vice-versa). To undo all the changes you've made with the Retouch tool in

the current editing session, click the Reset button at the lower right.

### **COPY PIXELS FROM ELSEWHERE IN THE PHOTO**

If you don't have good pixels (or enough of them) around the item you want to remove, you can copy pixels from elsewhere in the image by setting a sample point (iPhoto can't do this). This maneuver is handy for removing stuff that's close to items you want to keep. To do it, Option-click the area you want to copy the pixels from—your cursor turns into a plus sign like the one circled in the photo on the next page. Next, release the Option key, and then click or drag over the area that needs fixing.

As you work, the plus sign marks the area Photos is copying pixels from, and you see a white overlay



**HERE'S THE FIRST SAMPLE** point used to remove this bowl (circled; top). While the blurry background made this retouch easier than if it had details, the final result is still impressive (bottom).



marking your brushstrokes. Depending on the size of the area you're fixing, you may need to set several sample points to make color and texture match better. In this example, I set a sample point above the dog bowl and made two rows of brush strokes before releasing the mouse button. Then I set another sample point beneath the bowl, and made two more rows of brush strokes. Finally, I set a third sample point in the light-colored area at the upper left and made a few brushstrokes across the area where the bowl used to be to lighten it.

Be aware that after setting a sample point, Photos will use that point for subsequent fixes you make with the Retouch tool in that editing session. To return to using pixels outside your brush cursor, toggle the Retouch tool off and on by tapping

the R key on your keyboard twice (once to turn it off and again to turn it back on). Alternatively, click the tool's icon once to deactivate it and then click the icon again to reactivate.

No matter which of the above methods you use, it's important not to go overboard with the Retouch tool—if you use it extensively in an area with detail, the area blurs as if someone smeared Vaseline on it (heck, the same is true when using the Spot or Healing Brush in Photoshop and Photoshop Elements). Nevertheless, Photos' Retouch tool is remarkably powerful, especially for removing small stuff. ■



# How to create shared albums in Photos for Mac and iOS

iCloud Photo Sharing is the perfect way to share photos among friends—without the use of social media.

BY LESA SNIDER

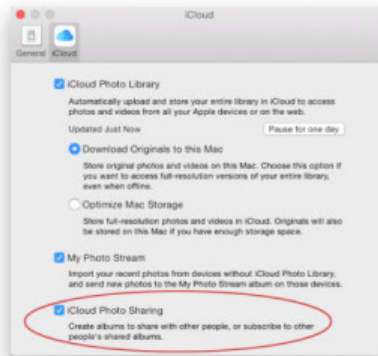
There is a wonderfully private way to share digital memories with certain people: iCloud Photo Sharing. When you create or subscribe to a shared album, it appears on all of your devices. And since iCloud Photo Sharing doesn't count against your allotted storage space for free iCloud accounts, it doesn't cost you a penny!

## TURNING ON iCloud PHOTO SHARING

To start the sharing spree, turn on iCloud Photo Sharing on all your devices (this has nothing to do with iCloud Photo Library). In Photos for Mac, choose Photos → Preferences and in the iCloud pane, turn on iCloud Photo Sharing. On an iOS device, tap Settings and then scroll down until you see Photos & Camera. Give it a tap and on the next screen, tap the switch next to iCloud Photo Sharing (it turns green).

## CREATING A SHARED ALBUM

Creating (and adding content to) shared albums is mercifully simple. In Photos for Mac, select an album or some thumbnails. Click the share icon in Photos' toolbar and choose iCloud Photo Sharing. In the resulting sheet, click New Shared Album, and then on the next sheet, name the album and invite someone to subscribe to it by entering their name, email address, or cell phone number into the To field. In the Comment field, enter a description of the

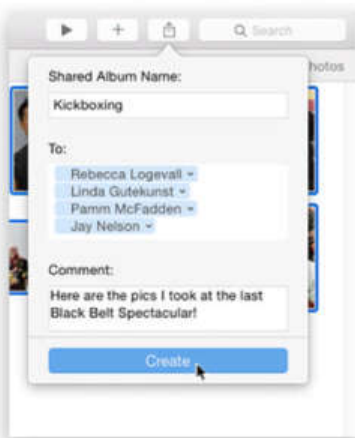
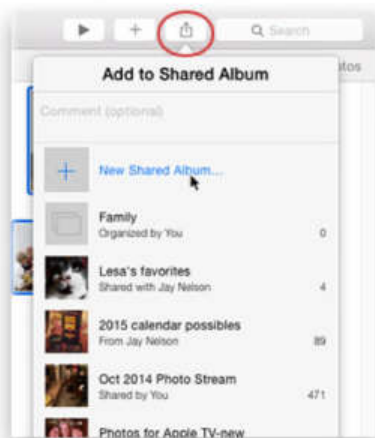


THE iCLOUD pane of Photos' preferences holds the key to turning on various iCloud services.

goodies you're about to share.

When you're finished filling out the all the fields, click Create. Your invitees promptly receive an email invitation to subscribe to your album. Once they click the Subscribe button in the email, the shared album appears in Photos' Shared view on all the devices on which they've turned on iCloud Photo Sharing. Creating a shared album in Photos for iOS works the same way, though you can't select a whole album for sharing: You have to select individual thumbnails instead (bummer!).

To like and comment on an item in a shared album in Photos for Mac,



**THE SHEET** at left lets you create a new shared album or add selected items to a previously shared album. When creating a new shared album, you can use the sheet at right to name it, invite people to it, etc.

open the album, double-click a picture or video and then click the **+** icon that appears in the picture's lower left corner (it looks like a thought bubble). When you do, the comment sheet appears. Click the smiley-face icon to like it, or click in the comment field and enter something pithy. Click Send, and Photos adds your comment to the list.

To like an image or add and view comments in Photos for iOS, tap to open the shared album, and then tap the picture itself to open it. Beneath the picture, you see controls that let you like the image, view comments, and add your own. To delete a comment, tap and hold your finger down on it, and then tap the Delete button that appears just above the comment.

Photos also helpfully collects all your sharing updates in a special

Activities album in Shared view in both Photos for Mac and iOS. This album houses big, beautiful thumbnails of the most recent additions to each shared album, as well as comments and likes—it's a great way to breeze through shared content to see what everyone is up to.

## DOWNLOADING CONTENT

In order to edit or use a shared photo in projects of your own, you need to download it. On your Mac, Control-click a thumbnail and choose Import from the shortcut menu. Photos dutifully adds the item to your Last Import album, where you can treat it like any other picture or video in your library: Edit it, add it to another album, include it in a project, and so on. To download content in Photos for iOS, tap the image thumbnail to open it, tap the



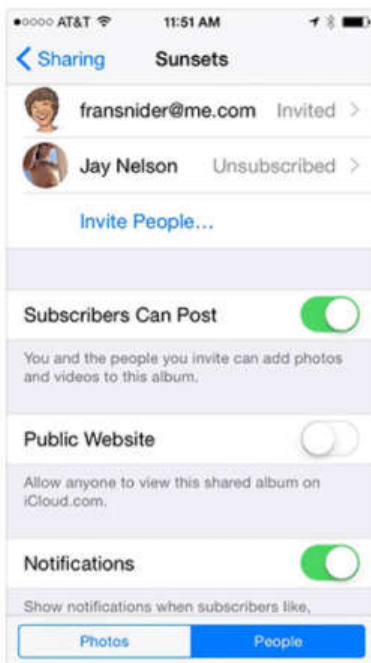
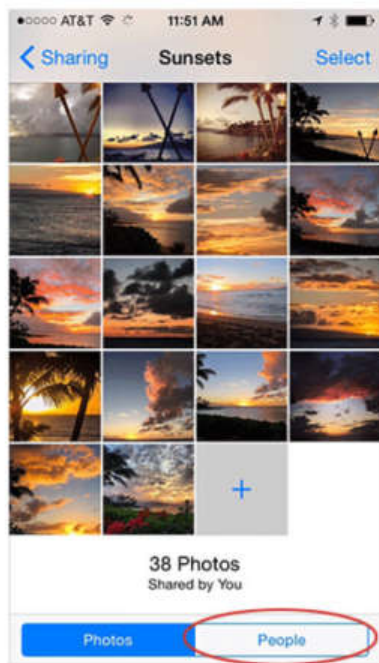
share icon that appears, and then tap Save Image from the row of icons that appears at the bottom of your device's screen.

## LETTING SUBSCRIBERS ADD CONTENT

A bonus (and semi-hidden) feature of shared albums is that you can let any subscriber add their own pictures and videos to the album. This creates an incredibly convenient, two-way sharing between you and your subscribers. To set it up in Photos for Mac, double-click a shared album to

open it or, if you have the sidebar turned (Option-Command-S), just click the album's name in the Sharing section to select it. Next, click the subscriber icon in Photos' toolbar. In the sheet that appears, turn on Subscribers Can Post.

To do this in Photos for iOS, tap Shared at the bottom of your screen and, if necessary, tap the Back button at upper left to close the shared album you're viewing so you see thumbnails of all shared albums. Next, tap the album you want to grant uploading permission to—you'll

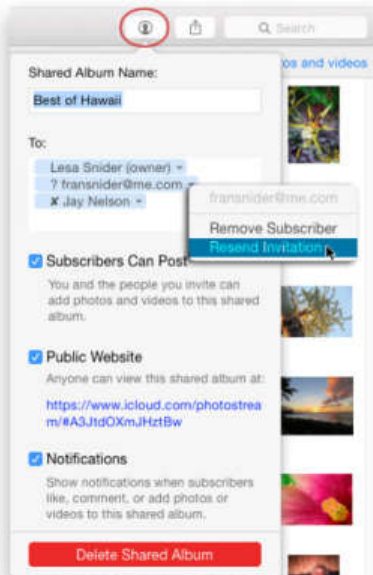


**WHEN YOU** open a shared album in Photos for iOS, the buttons at the bottom let you switch between viewing thumbnails (Photos; left) and the people you invited to the album (People; right). When viewing People, you can manage subscribers and allow them to post content to the album.

see the album's thumbnails. Tap People at the bottom right and in the next screen, tap the Subscribers Can Post switch to turn it on.

From this point on, the shared album synchronizes everyone with access to it: Any items you, or a subscriber, add to the shared album is sent to every device of every person who subscribes to it. Likewise, any items you (or a subscriber) remove from the shared album disappear on all subscribed devices (you can only delete items you yourself add). Heck, PC users can join the iCloud Photo Sharing party by installing iCloud for Windows. (For info on how to download it and set it up, visit Apple's support page; [go.macworld.com/asupport](http://go.macworld.com/asupport).)

You can also create an empty shared album that you, or others, can add content to later. This is handy when you want to set up a shared album for a far-flung friend or relative that they can put stuff into. To do it, just don't select any images before you create a new shared album. Be



**THIS SHEET** lets you perform all manner of subscriber-related chores. A question mark to the left of a name means that person hasn't responded. In that case, you can resend an invitation, as shown here. An X next to a name means that person unsubscribed from the album.

sure to give the recipient(s) permission to add content to the album and you're good to go!

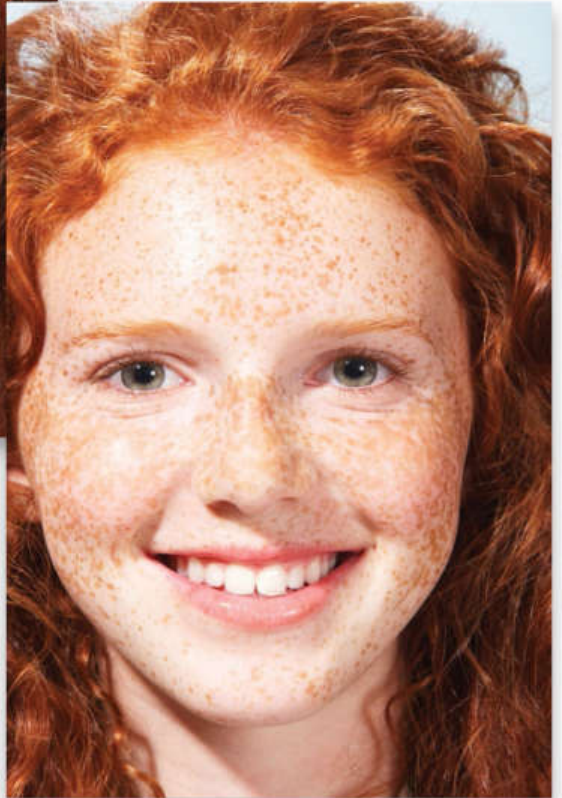
All in all, iCloud Photo Sharing is a heck of a lot of fun and the perfect way to share pictures with folks who aren't on Facebook or who aren't particularly tech-savvy. ■

# How to whiten teeth in Photoshop or Photoshop Elements



Whitening teeth is one of the most common edits made when retouching portraits. Learn how to do it without messing up your original image.

**BY LESA SNIDER**



**W**hen it comes to retouching portraits, whitening teeth is one of the most common edits you'll ever make. In this column you'll learn how to whiten teeth without messing up your original image and without having to make a single selection. As a bonus, this technique works in nearly any version of Adobe Photoshop or Photoshop Elements.

## THE POWER OF ADJUSTMENT LAYERS

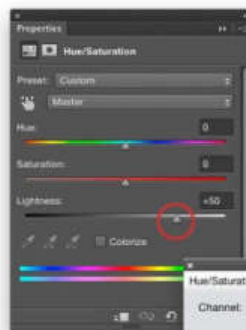
Both Photoshop and Elements include a handy array of adjustment layers that you can use to change the color and lighting in your image. When you employ an adjustment layer, the adjustment itself happens on a new layer, which safeguards your original image. Since the adjustment is isolated on a layer all by itself, you can lower its layer opacity to lessen the strength of the change you made and you can easily trash the layer if you don't like the results. Each adjustment layer also comes with a layer mask, which you can use to hide the change from the parts of the image that don't need it. All this adds up to a very efficient and very safe way to edit, as you're about to learn.

## WHITENING TEETH

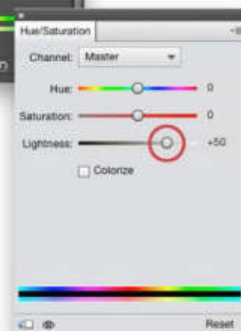
Open an image in Photoshop or Photoshop Elements and choose Layer → New Adjustment Layer → Hue/Saturation (in Elements you need to be in Expert or Full Edit

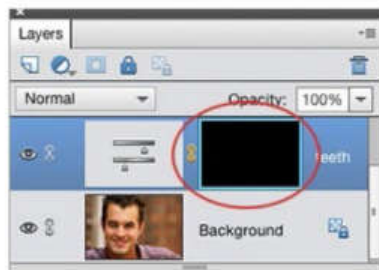
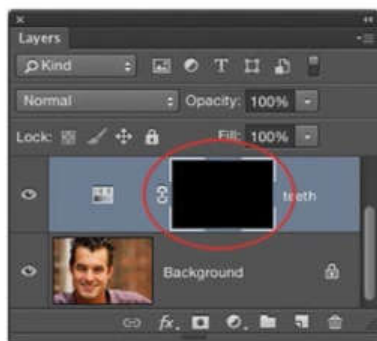
mode). In the dialog box that appears, enter **teeth** for the layer name and then click OK. A new adjustment layer appears in your Layers panel and, depending on which version of Photoshop you have, a panel or a dialog box pops open containing the sliders shown here. Drag the Lighten slider rightward to approximately +50, and the whole image gets lighter. (Don't panic—we'll fix that in a second).

Now let's use the adjustment layer's mask to hide the lightening we just applied. Take a peek in your Layers panel and make sure the mask is active (it's circled below). Think of a layer mask as digital masking tape, though



**HERE YOU** can see the Hue/Saturation controls in Photoshop (left) and in Elements (below).





**A BORDER APPEARS** around the mask whenever it's active. When working with masks, remember that black conceals and white reveals.

whereas real masking tape is beige or blue, digital masking tape is black. By adding black to the layer mask, you hide the layer's content in that corresponding spot in your image. With the mask active, press Command-I to invert it so it goes from white to black.

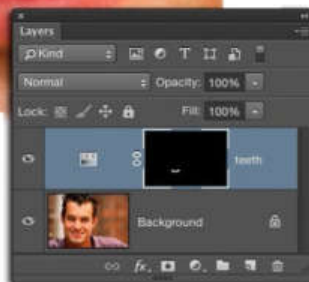
To see the teeth better, zoom into your image by pressing Command-plus sign (+) a few times, and then press and hold the spacebar while dragging your mouse to reposition the teeth so you can see them. To

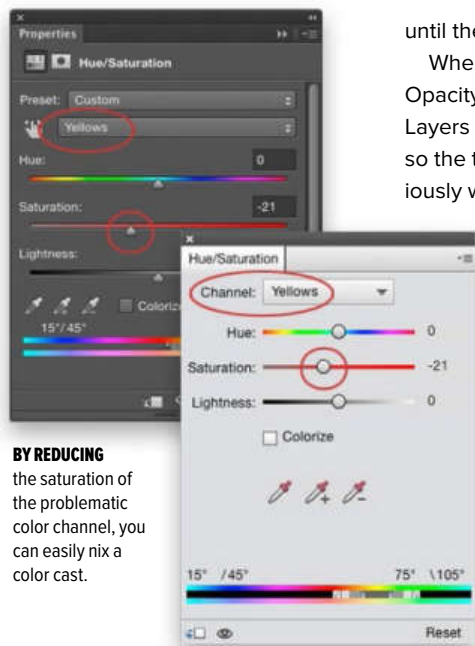
reveal the lightening atop the teeth, we need to paint that area of the mask with white. So press D to set the color chips at the bottom of your Tools panel to the default of black and white and then press X until white is on top. Press B to grab the regular Brush tool and from the Brush Preset picker in the Options bar, choose a soft-edge brush that's roughly teeth-sized.

Mouse over to your image and then paint across the teeth to reveal the lightening in that area. If you mess up, press X to flip-flop your color chips so black is on top and then paint over that area again to hide the lightening. To adjust brush size while you're painting, tap the left bracket key ([) to decrease brush size, or the right bracket key (]) to increase it. (There are other brush



**AS YOU PAINT** inside the mask with a white brush, you reveal the lightening atop the teeth. Nifty, eh?





**BY REDUCING** the saturation of the problematic color channel, you can easily nix a color cast.

resizing keyboard shortcuts, but this one is the simplest to remember.)

If the teeth look a little yellow, turn your attention back to the Hue/Saturation controls (double-click the Hue/Saturation layer thumbnail to reopen its panel if you need to) and from the Channel menu above the Hue slider, choose Yellow. Slowly drag the Saturation slider leftward

until the yellow color cast disappears.

When you're finished, set the Opacity setting at the top of the Layers panel to around 40 percent, so the teeth aren't overly and obnoxiously white. Save your document by

choosing File → Save As and then pick Photoshop from the format menu so your layers remain intact.

As you can see, this teeth lightening trick is worth having up your Photoshop or Elements sleeves.

Until the next time, may the creative force be with you all! ■

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## Mac 911

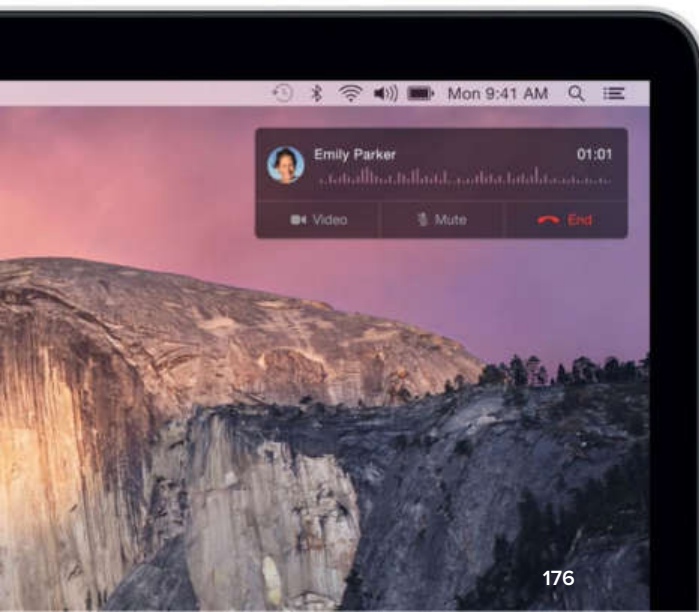
Solutions to your most vexing Mac problems.

BY GLENN FLEISHMAN

### Troubleshooting Continuity calls between Mac and iPhone

Apple introduced Continuity in Yosemite and iOS 8.1 to allow better handoff among devices for phone calls, text messages, browsing sessions, and hotspot use. Among its many requirements is that devices with which you want to use any of the connected have to be logged into the same iCloud account and, for most, on the same Wi-Fi network

Readers have questions about the phone-call portion of Continuity, and there aren't great answers for each.



## Disabling FaceTime ringing

**Q:** My experience is that if I don't immediately pick up and answer on the iPhone, the Mac will continue ringing a time or two after I started talking on the phone. Annoying.

—Ron Phelps

**A:** I've noticed the same problem, and it is annoying! However, there's no current option (nor none planned in OS X 10.11 El Capitan at this writing) that would let you disable incoming calls or even turn off FaceTime's ringer while also allowing call handoff. The ringer situation seems a little ridiculous: why not have a mute-ring-tone checkbox in the FaceTime app?

## Unwanted ringing on multiple phones

**Q:** I notice when I get a call to my personal phone, my business phone gets a forwarded call, and vice versa. I have tried dialing \*73 from both phones to disable call forwarding but no luck.

—Neil Widmer

**A:** This is another all-or-nothing situation. In Settings → FaceTime, if you have iPhone Cellular Calls enabled on an iOS device, any incoming call on one iPhone will also ring on that iOS device. The feature

☒ Calls From iPhone

Use your iPhone cellular connection to make and receive calls when your iPhone is nearby and on Wi-Fi.

was designed to allow an iPad or iPod touch to be used with phone calls, but it also works with iPhones.

Conceivably, you could pick one phone and disable that feature, unless you're enjoying having phone calls forward to OS X and iOS from both phones. Or you could create a second iCloud account and use that with one phone.

## Discontinuity

**Q:** I have a mid-2011 iMac and an iPhone 5, both running the latest OS. I cannot get the phone function to work on the iMac. I get an error that says the devices have to be on the same iCloud and Wi-Fi network. They are. I have disconnected the ethernet cable between my computer and AirPort. I have restarted both devices. I have phone calls via Wi-Fi enabled. All the instructions have been followed and it doesn't work.

—Michael Mackowski

**A:** The first problem is that Apple doesn't support Continuity on mid-2011 iMacs, only models released starting in late 2012. There

### FACETIME FOR OS X

lets you enable or disable calls via your iPhone.

are third-party patches that let you enable Continuity, but these can be inconsistent, as the feature relies in part on Bluetooth hardware and features that are only present in the supported models. (I tried this on a 2011-era MacBook Air and Mac mini with mixed results before upgrading computers.)

However, even with supported models I still see a huge amount of variation in Continuity's consistency. The Instant Hotspot feature should work all the time, for instance, and yet my iPhone rarely appears on either of my 2014/2015 model-year Macs.

Having ethernet plugged in doesn't disable Continuity, but the iOS device and OS X device must have Bluetooth enabled for many features and thus be within Bluetooth range. Phone calls only require Wi-Fi, and should thus work even with older Macs that have been patched, but there's clearly no promise there.

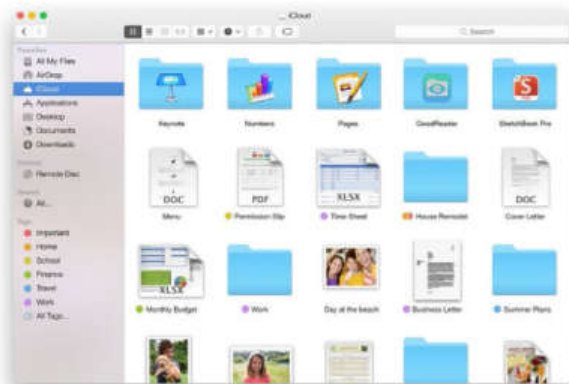
## How to get a new Finder window the size you want

**Q:** Most of the time the Finder window opens up very small and I have to resize it to make it larger, but sometimes it opens how I last closed it. With past OS X operating systems, it opened how it was left which is rather large. Is there a way

to have the window open how it was last closed?

—Dexter Rucker

**A:** This has baffled me as well, because I've seen inconsistent behavior, and I did some exploring. In my experience, I can't resize a window and then get the next opened window to work the same way. I checked through forums for the wisdom of crowds, and many people suggested deleting a variety



of preference or Finder-configuration files. While that's not a terrible thing to do, it also seems extreme.

In Yosemite, I tested one suggestion after I was unable to set a window's default opening behavior. I created a model window, closed it, and then closed all windows (Command-Option-W, Option-close button, or hold down Option while selecting

**YOU CAN GET** new Finder windows to open to the same size as the last one you created—with patience and a little trial and error.



**A READER FINDS** that Safari quits whenever he walks away from his Mac

File and choose Close All Windows). Then I held down Option and right-clicked the Finder icon in the Dock and selected Relaunch.

Voila! After that point, whenever I resized a Finder window, all subsequent windows would open in the same dimensions, offset slightly in location, including the width of the sidebar. I tried this in the current public El Capitan beta, but had zero luck. Perhaps it will be fixed by release.

What's odd about this solution is that I had just restarted the Mac a few hours before. Relaunching the Finder may clear files that persist across OS X's restart.

## Safari consistently quits in Yosemite

**Q:** After leaving my computer for a

period of time, I come back and Safari has closed down. No error or crash report, its as if someone is playing a trick on me and closes Safari. I have tried rebooting, deleting preference files, and turning off sleep. Not allowing my computer to sleep seems to have reduce the frequency that it happens, but I can't be sure of it.

—Andrew Chase

**A:** In 10.7 Lion, Apple added an automatic background quit ([go. macworld.com/bgquit](http://go.macworld.com/bgquit)) feature to OS X that's designed to better free up system resources by software that's not in use. It comes in two forms: automatic termination, which silently goes through the app's normal quitting process when you're not using it; and sudden termination, which kills off the app without any

warning.

Both features require developers to add support, and Apple incorporated termination into many of its apps as an example to others. I notice that QuickTime Player, which I use to record audio from a mic, will quit sometimes almost immediately after I launch it if I navigate to another app before opening a new audio recording window! That's probably a bit aggressive.

However, this automatic quitting is supposed to be paired with faster startup, so that from the standpoint of user, they're not waiting for the app to launch again, but rather it seems a very brief pause before it's available.

I suspect this is what's happening with you and Safari, though it's clearly more aggressive than you want. I would also suspect that you typically have many apps running or not enough memory available for the apps you routinely use. OS X is quitting Safari whenever it has the opportunity to avoid using disk-based memory swapping, which slows

down the system.

If you dare use the command line via Terminal, you can disable this behavior systemwide. Enter exactly the following, all on one line:

```
defaults write -g  
NSDisableAutomaticTermination  
-bool yes
```

Apps with the feature need to be quit and relaunched. Swap **yes** for **no** if you want to re-enable this feature later. ■

## Ask Mac 911

We're always looking for problems to solve! Email us at [mac911@macworld.com](mailto:mac911@macworld.com), tweet them at me (if brief) [@glennf](https://twitter.com/glennf), or call 206-337-5833 and leave a voicemail message. (We'll be experimenting with some audio in the future, and may put your question "on the air.")

Mac 911 can't provide direct email responses or answers for every question. For that, turn to Apple-Care, an Apple Store Genius Bar, or the Apple Support Communities.